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ORIGINAL LECTURES.

ON POTT'S DISEASE.

A Clinical Lecture, delivered at the Bellevue Hospital, New York.

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(Specially reported for THE MEDICAL NEWS.)

GENTLEMEN: This boy, aged thirteen years and nine months, was brought to me by Mr. Reynder (surgical instrument maker) about a week ago. He resides in Green Point, Long Island; his mother states that both parents and grandparents are healthy—she has, however, lost six children, these dying from scarlet fever. The patient has always had good health; has had no disease except the measles and whooping-cough. On March 1, 1882, the patient received a severe fall upon the ice, and afterward complained of pain in the back. His mother took the boy to the Demilt Dispensary, and informs me that Dr. White said there was nothing the matter with him, and ordered a simple tincture. Three weeks after the fall, she noticed a projection over the dorsal vertebræ, and took him to Dr. Peer, of Green Point, who applied the plaster-of-Paris jacket as the child lay on the table; he, however, placed no padding to protect the vertebræ.

The boy was only able to wear the jacket for a few days, as it caused pain in the spinal column and impeded his respiration. Dr. Peer was again consulted, and he advised the mother to take the boy to Dr. Knight, of the New York Hospital for the Ruptured and Crippled, who applied a brace having shoulder-straps and fastenings around both thorax and abdomen (see Fig. 1). The mother states she has regularly

FIG. 1.

taken the boy to Dr. Knight, and followed instructions faithfully, but became dissatisfied with the treatment, as the deformity rapidly increased. She was then advised by a friend to consult Dr. Frank Hamilton, who advised her to return to Dr. Knight, as he knew of no one so well able to treat the case.

Dr. Gibney, of the New York Hospital for the Ruptured and Crippled, carried out the treatment recommended by Dr. Knight. The deformity, however, increasing, the mother called upon me with Mr. Reynder, at the same time showing me a report from the Hospital of the Ruptured and Crippled, from which I quote the following: "The discoveries, inventions, and mechanical appliances, in accordance with physiological laws and surgical science, we make available, but we carefully avoid compression of the respiratory organs by encasing them in plaster of Paris, or impeding the arterial circulation by compressing bands to the limbs. All such adventurous treatment is avoided in this hospital."

It is the first time I have seen this report, or I should have replied to it a long time ago. I therefore avail myself of this first opportunity, only regretting that I have not had time to call and see Drs. Knight and Gibney, and that I did not write to them and invite them to be present to-day, as they could then personally have seen the advantage of the plaster-of-Paris jacket, and that their own brace, and not the plaster jacket, was compressing the patient.

Now here is an excellent opportunity for testing the relative merits of the plaster-of-Paris jacket, which we will now apply, and point out the defects of the brace previously worn by the patient and which these gentlemen advised. The following measurements were now made with the brace upon the boy, the measurements being over the brace:

Over top of chest, . . .	25⅝ inches.
Over nipple, ...	24⅝ "
Over umbilicus, . . .	27½ "
Capacity of lungs measured by spirometer, . . .	98 cubic "
Height, ...	4 feet 5⅝ "

The brace was then removed and the following measurements taken:

Over top of chest, . . .	27¼ inches.
Over the nipple, . . .	26⅛ "
Over the umbilicus, . . .	24 "
Height, ...	4 feet 6⅛ "
Capacity of lungs, . .	116 cubic "

Upon a second trial of the spirometer, the boy blew so hard that the rubber pouch of the instrument burst, and thus unfortunately prevented the capacity of the lungs being taken after the application of the plaster jacket.

This is a practical illustration. We will now notice another point of objection to this brace. It is impossible to hold the instrument in position without tightening this muslin cloth to hold the irons in place. You then cause compression of the thorax. You also notice upon the sacrum and on either side of the ilium there are bruises, and again upon either side of the spine upon the spinous processes we find these bruises (see Fig. 2). It is impossible to fasten this brace securely and retain it in position without causing these lesions.

This practically shows you to what extent this brace compresses both thorax and abdomen, and to what extent circulation and respiration has been impeded (see Fig. 3). We will now place the child in such a

position that he can expand the lungs to the greatest possible extent, and we then apply the plaster-of-Paris jacket so that no excoriation of the body can take place, but all parts are equally and securely encased, avoiding pressure at any one point, and he can expire as freely as though the jacket were not worn. Some of the leading professors of Europe have used chloroform in order to secure greater extension, and have even attached weights to the heels to secure this result, but this is a most dangerous method.

FIG. 2.

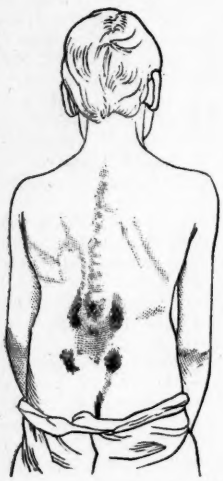


FIG. 3.

A leather collar was then placed around the patient's neck, with two straps on either side passing under the occiput and inferior maxilla to a suspended cross-bar, to which also were attached two straps passing under the arms. He was then carefully and gradually raised to his fullest height, at the same time leaving the feet firmly upon the ground. My rule is to raise the child within the limits of comfort, but not to cause a feeling of uneasiness or pain in the least degree.

We now apply to him a knitted shirt, manufactured by the Bickford Knitting Machine Co., 689 Broadway. The object is to have a perfectly elastic shirt. This fits the patient close to the skin at every point. Now, under this shirt anteriorly we place a folded cloth-pad, a little thicker over the sternum; then drawing the shirt firmly down between the legs, secure it there with a safety pin in order to keep it perfectly smooth.

Having previously prepared the bandages as follows: take cross-bar muslin, tearing it in strips three inches wide, rub the plaster of Paris well into the bandage, then roll it up carefully and keep it in a hermetically closed case or box to avoid absorption of moisture until ready for use; I use the dental plaster, which I find is the only plaster I can rely upon and which, generally speaking, sets as fast as applied; we now, as required, dip them into a basin containing sufficient water to cover them when standing on their ends; as soon as the air has escaped from the bandage it is then ready for use. You will here observe that I now place a pad on either side of the spinous process, to protect that eminence caused by disease; it is sometimes desirable to place a pad over the ilium, but in this case it is not necessary; the patient being now ready, my assistant applies the plaster-of-Paris bandages; you will notice as he draws the bandage around the body that I follow up with my hand rubbing the plaster into each band previously applied.

Now although the back is made as straight as it can well be by the suspension, yet the weight of the head still presses down upon the spinal column causing absorption of the vertebræ at the diseased point; it is necessary, therefore, to take the weight of the head from off the spine, and we now apply a *jury-mast;* this, as you observe, consists of two narrow cross-bars and side rods, from which passes a central rod, this central rod curving over the head of the patient, is supplemented with a small cross-bar; to the body of this light framework are fastened narrow strips of tin, perforated in both directions, the projecting burrs of which hold the instrument securely in the bandages. I have noticed that some physicians have perforated the tin in only one direction, thus allowing the instrument to slip on one side. The jury-mast being now shaped to fit the spine of the patient the plaster bandages are again applied over the instrument, encasing it firmly and securely in the centre of the jacket.

The patient should now be laid upon an air-bed; in taking the child down from his suspended position keep the body perfectly straight, for should you allow him to bend his back before the plaster has set, the application of the plaster jacket is of no avail and your work is lost.

We now draw out the pad which was placed over the thorax and abdomen under the shirt, and before the plaster has thoroughly set I commence with my fingers and thumbs to mould the jacket in over the spines of the ilium so as to widen the jacket out and take off the pressure upon the spinous processes, and at the same time to mould the jacket to fit the body; you thus shield the parts from pressure at any one point and equalize the pressure upon all parts of the trunk, and hold the child, as it were, from telescoping. It is now necessary to cut out some part of the jacket from under the arms, and also slightly in front of the thigh to allow him to flex the thigh. The plaster jacket now being dry, we proceed to take the weight of the head from off the spine by placing a light leathern collar with chin-piece attached around the neck of the patient; from this collar two small straps pass on either side of the head and are fastened to the cross-bar above the head, thus effectually relieving the spine from compression. And now, standing the boy upon the floor, you notice he can percuss upon the ground with his heels without percussing the vertebral column at all, and no pain is caused by the percussion. (The boy then stamped upon his heels without feeling the least pain, or indicating any by his countenance; the difference in the expression of his countenance being most marked.) This is a practical fact; it is not theory.

The old-fashioned brace had arm-pieces to lift the shoulders up, but that does not take off the pressure from the spine; when you take the pressure from the spinal column by elevating the head, the respiration is perfectly free, there is no compression of the thorax, and hence the advantage of the plaster-of-Paris jacket —compression of the parts is entirely avoided, while the vertebral column is relieved from the weight of the head as described.

This boy has had the jacket on him once before, but without effecting the desired result, simply because it was put on when he was lying down. I have tried all ways in which to apply the jacket and find the best way to apply it is when the patient is suspended.

CASE II.—This little boy was brought to me May 23, 1881. I here give you his history, as recorded on my books.

May 23, 1881.—Wm. Halsey Baird, age 2 years, 2 months, 23 Cottage street, Newark, N. J. Parents both healthy, have one other child which is strong and healthy, and is now 7 years of age.

Patient was always well until September, 1880, last,

when the child had a cold, and was taken to Dr. S. B. Dennis; as the child had never walked, the Doctor treated him by electricity, salt-water baths, massage, etc., for nine months; not improving, the child was taken to Dr. Blylie, who finding frequent priapism from contracted prepuce, attributed his want of muscular power to reflex irritation, and circumcised him. Not improving, however, in his ability to stand or creep, and complaining of constant stomach-ache; Dr. Blylie suspected trouble of the spine, and on examination found two small projections over the two lower dorsal spines, and advised the father to come to me.

On examination I found that the eleventh and twelfth dorsal vertebræ were quite prominent, the child was unable to stand. On laying him on his stomach across my knees and extending the spine, his breathing was more free, and he said he felt well; on pressing the head and sacrum towards each other it produced a spasm of his legs, and he cried severely with the pain induced by the pressure. Diagnosis: Spondylitis of the eleventh and twelfth dorsal vertebræ. No cause could be assigned for the difficulty.

Treatment: horizontal position, in wire cuirass.

May 31st.—Child was placed in a wire cuirass.

July 1.—Child has improved since being placed in the cuirass; to-day suspended him and applied plaster-of-Paris jacket.

4th.—Child stood up to-day for the first time.

Aug. 8.—Child has been perfectly comfortable since the jacket was applied.

Nov. 30.—Child has been in excellent health since last date; has been walking for the past five or six weeks; the jacket was cut down about two weeks ago, because it was too tight, and secured by a roller bandage; child has grown in every way. I afterwards applied a new jacket.

April 4, 1882.—Five weeks ago the child complained of the jacket being too tight, the father then cut it down and secured it with a roller bandage; has been perfectly well all the winter, and has been walking all the time. When the jacket was removed the child could stand and walk without any pain or support. There is no pain on compression or concussion; a new jacket was then applied as a protection against relapse.

Sept. 18.—Child is perfectly well, and no perceptible deformity of the spine, with the exception of a slight fulness hardly observable; can run and jump as well as any child.

Weighs 31½ pounds, and measures 3 feet and ¼ inch in height. (The child was then stripped and placed before the class.)

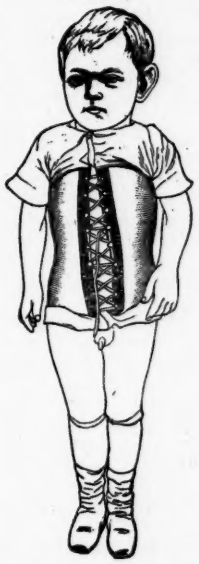
Now here (pointing to the child) by carefully looking you can see a slight shadow and fulness just at the lower dorsal vertebræ; it is, however, hardly noticeable.

Dr. H. Smith, of Philadelphia, states that no case of Pott's disease was ever cured without deformity. If you let the case go on too far, of course you will get deformity; if absorption of the vertebræ has taken place, there is a deformity that will last a life-time, but the deformity is not the disease, it is the evidence of the disease; the disease must have existed a long time before the deformity occurred.

Now your duty as a skilful practitioner is to diagnosticate the disease in its incipient stage; and if you will carefully spell out the symptoms, you will diagnosticate the disease before the deformity has occurred; and if you apply the treatment in that stage, you will cure the disease without deformity. I have found the average time of cure to be effected in from two to two and a half years, some being cured at an earlier, and some at a later date. Now compare these statistics with those of past years, where the patient was confined to his bed for ten or twelve years, and if they ever were cured it was with a deformity.

Now here is a boy, you observe, who has been cured almost without any deformity at all in less than eighteen months; this child (here placing a penny on the floor) stoops over and picks up a penny from the floor as well as any child; you will see those children who are suffering from this disease, when attempting to pick anything up from the floor, will squat down bending sideways, and avoid bending the spine, which they would not do if free from disease of the vertebræ. When we have cured, the child of the disease, we cut the jacket down and allow him to wear it as a corset for some months longer, simply as a protection against a relapse (see Fig. 4).

FIG. 4.



Mr. Howard Marsh, of St. Bartholomew's Hospital, London, in an article written by him in the *British Medical Journal* of October 12, 1881, remarks, "that although the plaster jacket is the best treatment for adults, it is an absolute impossibility to apply it to a child under nine years of age, because they have not sufficient pelvis to support the jacket." I have not had time to answer this remark, but of a great number of children below the age of nine years who have had the plaster jacket applied, the greater number have been cured with but slight deformity; and I am waiting to bring together a number of those who have been cured by this means, and have them photographed in a group. I have not been able to get many cases of children suffering from this disease who can stand up or run about when brought to me because they were too young or were paralyzed, and therefore could not take their photograph before the application of the jacket; we have only the artist then to rely upon for a picture of the child's condition, and people will scarcely credit his representations, no matter how good an artist he may be. You can, however, verify these facts in your own practice. If the child is too young, and has no pelvis to which you can apply the jacket, you must then place it in a wire cuirass for a few months; the child can in this manner be carried out-doors to secure the benefit of the fresh air.

Mr. Marsh states that a child being only as large around the hips as at the umbilicus, the plaster will slip off; now here is a practical case to illustrate this point: the plaster jacket worn by this child (measuring

jacket before class) is exactly 21 inches around the umbilicus, and it is also exactly 21 inches around the hips; but, as you observe, it has been moulded in when wet, over the crest of the ilium, and it is exactly 21 inches at that point, thus proving Mr. Marsh's measurement correct. Now in order to obviate this difficulty, I mould the jacket in when wet, over the crests of the ilium and secure a shoulder for the jacket, at the same time allowing greater distention of the abdomen. I also, as you observe, have moulded this jacket in *below* the ilium antero-posteriorly, thus increasing the width of the jacket laterally, which is just the opposite to the moulding *above* the ilium, and thus the jacket is held firmly upon the child, the measurements still remaining just the same, namely 21 inches.

CASE III.—Now here is a little boy who, had he been treated in the proper manner, would not be in his present condition, but the father of the child, Mr. Dunn, will give you the history of the case. Statement made by Mr. Dunn: "We discovered that something was the matter with the child some seven weeks before we could see anything outwardly; especially we noticed it when the child would stoop down; I sent for a physician, and he decided something was the matter with his spine; he sent to New York to get a brace to support the spine. In two weeks time after wearing the brace the projection upon the spine was almost as distinct as it is now. At the time of the application of the brace there were no appearances of this projection upon the spine."

This statement does not surprise me in the least; if you bind the child together how can it grow; it would make it grow deformed with these straps over the shoulders and around the body; they will crush the vertebræ together and increase the rapidity of the growing deformity. This child was afterwards put into a hammock and the plaster jacket applied as the child lay on his stomach, according to the method of Mr. Davy of London, which, you will observe, has given a backward curve to the spine; he cannot percuss upon his heels, as you see.

Now this child has been under treatment for two years and you see how great the deformity of the spine is at the present time. Compare it with that of the previous case, who has now been under treatment but eighteen months, and yet is completely cured and without deformity. A simple glance will suffice to show how far the superiority of the plaster-of-Paris jacket, when properly applied in the treatment of spondylitis, is over any brace that has yet been invented.

At a future time I will bring before you the first case presented here to-day; we will then note the boy's condition as treated by the application of the plaster-of-Paris jacket.

ORIGINAL ARTICLES.

IS TUBERCULOSIS A PARASITIC DISEASE?

FOURTH PAPER.

BY GEORGE M. STERNBEBG, M.D.,
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BEFORE proceeding to give an account of the results obtained in my inoculation experiments with tuberculous sputum, I beg to be indulged in a few remarks with reference to the value of photography in the study of micro-organisms. These remarks are suggested by the wood-cut (figure 6) in my last paper, which is copied from a photo-micrograph of *Bacillus anthracis* (amplification 500 diameters).

This figure illustrates very well the difficulty of reproducing a photo-micrograph, satisfactorily upon wood; and, also, the fact that the value of sun-pictures of micro-organisms depends to a certain extent upon whether they are to be subjected to the scrutiny of a trained or untrained eye.

Those who are familiar with *Bacillus anthracis* from personal observation or from drawings will scarcely recognize the amorphous granules and irregular linear figures in this wood-cut, as the spores and rods of the bacillus in question. The central filament is, however, very well drawn, and it was for this especially that this photo-micrograph was selected.

It is well-known that an expert microscopist, when at work, pays very little attention to extraneous objects in the field, to dust-specks on the eye-piece, etc., while a novice is very apt to have his attention particularly attracted by these things and to overlook the particular object which we desire to show him. So an art connoisseur looking at a time-worn picture is able to exclude the fissures and stains, and to his mental vision the work of the master is revealed in all its perfection of form and color, while for the uneducated eye there is no beauty in the scarred and dingy canvas.

The focal range of the high-power objectives used in photographing bacterial organisms is so short that all of the objects in the field of view can not be brought into proper focus at the same time, even when these are attached to the thin glass covers, as is customary; for all are not in exactly the same plane, and there is a certain variation in the diameter of these minute organisms which causes the best focal adjustment for one, to be not the best for another. The aim of the operator is, therefore, to secure the most satisfactory general results, and the expert in looking at the picture will fix his attention upon the objects which are well-defined, recognizing the fact that some are a little out of focus and therefore more or less distorted.

In view of their difficulties I am inclined to think that it is better to place carefully executed drawings, made by the observer, in the hands of the wood-engraver, rather than photo-micrographs.

By the heliotype process the latter can be reproduced with great fidelity; but owing to the expense of this process this mode of illustration is not available for journal articles. The main value of photo-micrographs consists in the fact that they show to an expert that the observer who thus illustrates his work has sufficient technical skill in the manipulation of high powers and in preparing, staining, and photographing the organisms which he describes, to insure his readers that they are not the victims of gross mistakes, such as have more than once passed current in medical literature as the result of a facile pen in the hands of an indifferent microscopist. Beyond this, photo-micrographs possess an especial value for the observer himself. They are his memoranda of what he has seen, and enable him to compare organisms observed at different times, to detect slight morphological differences, various modes of grouping, etc. I take this opportunity, also, for correcting a typographical error in my last

paper. On page 312, second column, third line from bottom, for "spontaneous *fusion*," read "spontaneous *fission*."

In my third paper (page 312) I report a negative result in three out of six specimens of tuberculous sputum furnished me (Aug. 10) by Prof. Hirschfelder from patients in the City and County Hospital, San Francisco. A subsequent examination by Dr. H. and myself demonstrated the presence of Koch's bacillus in the sputum of these patients. One of these cases has since terminated fatally, and I have in my possession a portion of the lung preserved in alcohol. The tubercular nodules in this lung contain the bacillus in abundance.

A more ready way of demonstrating the bacillus in such material than the somewhat tedious process of making sections, staining, and mounting in balsam, is to make a fresh section, pick out a tubercular nodule with a clean instrument, crush it upon a thin glass cover in a drop of distilled water, dry by gentle heat, and finally stain by Ehrlich's method.

Experiments upon Animals.

Experiment No. 3, July 29[1].—The following animals were inoculated with the sputum of a tuberculous patient (diagnosis by Prof. Hirschfelder, to whom I am indebted for the material): One pup, four weeks old; one half-grown rabbit (white); two smaller rabbits (spotted); one small guinea-pig. My report of the microscopical examination of the material used in these experiments will be found on page 311 of this journal and is as follows: "A few bacilli were seen by Baumgarten's method which possibly respond to the test-failure to stain by methyl violet after treatment with solution of potash—but the result is not considered satisfactory, as the bacilli referred to appear to have less color than others in the same preparation, because of their smaller diameter, rather than to be entirely without color." At the present writing I no longer doubt the presence of Koch's bacilli in the material referred to, and am convinced that the demonstration would have been made at the time if I had been familiar with Ehrlich's method.

The pup used in this experiment presented no signs of ill-health up to the time it was killed (October 11th). It had, however, a local ulcer at the point of inoculation (the side of the neck) which did not entirely heal until a short time before the animal was sacrificed. Post-mortem examination did not reveal anything abnormal in the lungs, spleen, or liver. The animal was fat and no tubercles were discovered in the organs named, or the serous membranes.

The half-grown white rabbit was killed October 8. A few miliary tubercles (?) of small size were founds in the lungs of this animal. These did not contain Koch's bacillus. Lymphatic glands from the axilla, examined by Ehrlich's method, also gave a negative result. The animal was fat and all the organs appeared to be normal with the exception of a number of minute tubercles scattered through the lungs as stated.

[1] For an account of experiments 1 and 2 of this series, see THE MEDICAL NEWS, page 311.

One of the small spotted rabbits was killed October 9. This animal was in good condition and had grown very much since the date of inoculation. *The lungs contained groups of tubercular nodules of considerable size, and the bacillus of Koch was found in these by the method of Ehrlich.*

The other spotted rabbit has been lost sight of, and has possibly been used in one of my septicæmia experiments.

The small guinea-pig was killed October 9. The animal had grown considerably, and was in apparent good health. There was still an open ulcer, the size of a silver five-cent piece, at the point of inoculation. The lymphatic glands in the axilla, near point of inoculation, were greatly enlarged. *The lungs, liver, and spleen contained numerous tubercles, and the presence of Koch's bacillus was demonstrated in these organs and in the enlarged lymphatic glands.*

Experiment No. 4, August 12.—Inoculated the following named animals with tuberculous sputum from Dr. Brook's case. This patient was in the last stages of consumption, and has since died. The sputum contained an abundance of Koch's bacilli. (*Vide* MEDICAL NEWS, page 312.) One pup, six weeks old; one large spotted rabbit; one small spotted rabbit; one large male guinea-pig.

The small rabbit died at the end of three days. The lungs, liver, spleen, kidneys, and brain were normal in appearance, and the remark was made at the time that the animal probably died from some cause independent of the injection. Its colon was in a congested condition. No bacilli were found in lymphatic glands from the vicinity of point of inoculation.

The guinea-pig died August 24. There was a considerable collection of fluid pus at the point of inoculation, which was found to contain a few of Koch's bacilli. The animal was quite fat; its liver was leather-colored and loaded with fat; the spleen was slightly enlarged and dark-colored; lungs normal. No tubercles found in any of the organs. It is the writer's opinion that the animal died of septic poisoning (septic toxæmia due to chemical products of decomposition) resulting from the presence of the collection of putrid pus in the subcutaneous connective tissue.

The large spotted rabbit remained in good flesh, and in apparent good health up to the time it was killed, October 7. An ulcer, of small size, was discovered at the point of inoculation a few days after the operation. Pus from this ulcer examined September 14, contained Koch's bacilli. The lymphatic glands in the vicinity became enlarged, and upon making an incision into one of them (September 18) a small quantity of cheesy pus escaped. This was carefully examined for the bacillus, by Ehrlich's method, with a negative result. The absence of the bacillus was also proved by two culture-experiments in which sterilized blood-serum was inoculated with a little of this cheesy material. No development occurred. This rabbit remained in good condition, and in apparent good health up to the time it was killed, October 7. Upon post-mortem examination a collection of cheesy pus was found at the point of inoculation, and an enlarged

lymphatic gland in the vicinity contained material of the same kind. One small group of tubercles was found in the lungs. Koch's bacilli were not found in these or in the contents of the enlarged gland.

The dog was killed October 12, just two months after inoculation. It had an open ulcer at the point of inoculation for several weeks, but this had cicatrized a short time before its death. It remained active and playful, and in good flesh up to the date mentioned. Upon post-mortem examination two enlarged glands were found in the axilla, near point of inoculation, and *contained an abundance of Koch's bacilli.* The spleen contained numerous miliary tubercles, but no bacilli were found in these. The lungs were normal.

Experiment No. 5, August 14.—Inoculated two small rabbits with sputum of tuberculous patient (case in my own practice, *vide* MEDICAL NEWS, page 312) demonstrated, by Ehrlich's method, to contain Koch's bacilli.

One of the rabbits was injected with normal saliva (my own) October 3, and died of septicæmia on the 6th. Its lungs contained numerous groups of tubercles, but repeated examination has failed to demonstrate the presence of the bacilli in these.

The other rabbit was killed September 25. The lungs were found to contain *a few tubercles in which Koch's bacilli were found.* Other organs normal, with exception of two cysts in the liver containing the ova of a parasite (species ?) very often found in this situation in the rabbit.

Two culture-tubes containing gelatinized blood-serum, sterilized by Koch's method, were inoculated with tubercular material from the lungs of the rabbit last mentioned. These were placed in the culture oven at 100° Fah. No development occurred in one of these tubes, but in the other microscopical examination made at the end of twenty days showed that an abundant development of Koch's bacilli had taken place. As pointed out by Koch this development takes place *in situ*, the bacilli not penetrating the gelatinized blood-serum, and not extending materially upon the surface. I have several other cultures started, and in each case with the same result, so far as the naked-eye appearance is concerned. The blood-serum remains transparent and free from other micro-organisms; the bits of tubercular material remain upon its surface; and the only change apparent is a slight lateral extension (?) and increased opacity, or rather a faint brownish color in place of the pearly white lustre of the original material.

Experiment No. 6, August 24.—Inoculated a small rabbit with pus from large guinea-pig (subject of experiment No. 4). This pus, which came from an abscess at point of inoculation, was found by Ehrlich's method to contain Koch's bacilli. The rabbit remained in apparent good health, and in good condition up to October 11th, at which date it was killed. A single transparent nodule the size of a pin's head was found upon the surface of one lung. This examined at once by Ehrlich's method, was found to contain giant cells and the bacillus of Koch. The bacillus was also found in a collection of cheesy pus at the site of inoculation and in an enlarged lymphatic gland from the vicinity (axilla). This enlarged gland contained numerous white nodules which contained giant cells and the bacilli in question.

The writer proposes to leave those who have followed him thus far to judge for themselves as to the value of the experimental evidence above recorded. Having undertaken to repeat the experiments of Koch, he does not wish to be hampered by any premature expression of opinion, as the most important portion of the experimental inquiry remains to be made, viz.: the cultivation of the bacillus through successive generations, (a fortnight is required for a single culture); inoculation experiments with pure cultures; and, side by side with these, inoculation experiments with material from various sources which is free from the bacillus.

But our promises are made as to the completion of this undertaking which involves a considerable expenditure of time, and a certain amount of money, items which are of some consequence when they are drawn from the resources of a single individual. Fortunately Koch has had a liberal government at his back and his experiments may be counted by hundreds, where those of his humble followers can not be by scores. Still the observations and experiments recorded in these papers have been no inconsiderable tax upon the writer's time during the past four or five months, and, as one engaged in interrogating nature by the experimental method, has always a sufficient number of problems before him in which he can take the more agreeable *role* of pioneer, he feels scracely equal at present to the labor involved in following to the end the path which has been trodden by this indefatigable explorer. Nor are my facilities for doing this work such as I would wish. A culture-chamber kept in operation, night and day for many months, by means of *an alcohol lamp* (no gas at military posts), is not only expensive but difficult to regulate. Rabbits and guinea-pigs are not always to be had in the San Francisco markets, and the price demanded for them indicates that they are offered for sale as pets rather than for the table, or for scientific purposes.

Perhaps, then, some one more fortunately situated will take up this matter where I leave it for the present. Or, if we wait a little, it may be that some one of the many well-known experimentalists in Europe, under government auspices, will undertake to repeat Koch's experiments, and we will then have the confirmation, as we have had the exploratory investigation, without putting our hands in our pockets, and, as heretofore, will have the calm satisfaction of knowing that we receive our scientific information at second-hand.

STRYCHNIA AS AN ANTIDOTE IN CHLORAL POISONING.

BY J. T. MOORE, M.D.,
OF TILSONBURG, ONTARIO, CANADA.

IN the *American Journal of Medical Sciences* for April, 1882, page 608, under the heading of Med-

ical Jurisprudence and Toxicology, I find an article from eminent authority relating to the antagonism of strychnia and chloral, the correctness of which I cannot verify from past experience (at least some of the conclusions). I do not for a moment dispute the theory as arrived at by experiments on rabbits or other small or cold-blooded animals, but I state that experience teaches us more truthfully and practically when circumstances arise by which conclusions may be drawn from actual experiment upon the human organism. To show the power which large toxic doses of strychnia exert in controlling and antagonizing acute chloralism, I cannot illustrate better than to give report of following case:

CASE I.—On May 30, 1882, at 10.30, A.M., I was requested by Dr. Soper to meet him in consultation to see O. B., aged about 50, spare build, and prematurely aged in appearance. Upon arriving, I elicited the following information from Dr. Soper, who first saw the patient about thirty minutes before I arrived. About midnight the patient had left in his room an 8 ounce mixture, containing 1 drachm of chloral hydrate to the ounce. He was on a visit to his brother, who lives in town, and stated that he had been in the habit of using a similar mixture to relieve pain and produce sleep; however, in the morning, when they went to call him, he was in a profound sleep, from which they could not rouse him. They concluded to allow him to sleep, which he did until 10 o'clock, A.M., when they became alarmed and sent for a physician. He had taken 5 ounces of the mixture, which represented 300 grains of chloral; present condition, surface cold, heart's action very rapid, feeble, and irregular, missing about every fourth beat; respiration labored; pupils totally insensible to light; conjunctiva intensely congested, totally insensible to all external impressions; reflex excitability totally *nil*.; tongue paralyzed, so that he had to be rolled well forward to prevent it falling back into throat and impeding respiration; mucous râles of large character in both lungs, and considerable rumbling in stomach and bowels. His condition was such that we could not give anything *per via nat.* The time, about six to eight hours, since taking the dose rendered the stomach-pump of no assistance. We concluded the only chance left was hypodermic medication; consequently I threw into the right arm 5 minims of the pharmaceutical solution of liquor strychniæ, diluted with 5 minims of water; in ten minutes the pulse was stronger, slower, and more regular; it then registered 116; thirty minutes later it had risen to 144, weak and flabby again; threw into left arm 7 minims liq. strych., diluted to 14 minims; ten minutes later, pulse 120, stronger, and more regular than before; also, gave enema of two ounces of brandy in half a pint of milk; respiration much easier. Professional engagements calling me away, Dr. Soper watched him as he gradually improved, pulse falling and becoming stronger, and respiration becoming more natural, until 2 P.M., when the symptoms seemed more stationary. At 3 P.M. Dr. Soper threw into the left arm 6 minims of strychnia, as before. I called at 3.30, and found the patient bolstered up in bed, taking cognizance of surrounding objects in a bewildered manner, pulse 68, strong, perfectly regular, and from this time the patient steadily improved, and at 7 P.M. was able to get up, dress, and walk about the house, asking for more chloral; passed water freely at 7.45. The following morning he rode thirteen miles in a stage coach to his home, where the following night he succeeded in getting hold of a mixture containing 700 grains of chloral, which had been hidden from him, and drank the whole of it, dying about two hours after.

CASE 2.—Some three years ago I had a valuable dog poisoned with strychnia. Every symptom strongly pointed towards speedy death. I used hypodermically a saturated solution of chloral hydrate, carrying it independent of quantity to total hypnotism; the result was, life was saved and a good recovery made, although partial paralysis of hind quarters existed for a couple of weeks; temporary paralysis of bladder and bowels passed off in twenty-four hours.

From the above cases, I should not feel justified in wasting valuable time in trying other experiments, as I believe, unless the quantity of either poison taken be not largely in excess of that which the animal economy can eliminate in a reasonable time, they may be antagonized the one by the other.

SODIUM BICARBONATE IN THE TREATMENT OF ACUTE TONSILLITIS.

BY E. STUVER, B. SC., M. D.,
OF RAWLINS, WYOMING TERRITORY.

THE routine treatment of acute tonsillitis by means of gargles, inhalations of medicated vapors, leeches, poultices, etc., even in the most skilful and judicious hands, furnishes at best but very unsatisfactory results.

Flint, in his *Principles and Practice of Medicine* fourth edition, page 396, says, "Acute tonsillitis generally ends in suppuration; an abscess forms and purulent matter sometimes fetid, and nauseous to the taste is discharged after a period varying in different cases from two to ten days."

The disease, while not involving danger to life, except in those rare cases in which œdema of the glottis supervenes, is nevertheless, owing to the pain and difficulty in deglutition, a very distressing affection.

In view of the above-indicated results of treatment, together with the fact that the most eminent and popular authorities, do not allude to the beneficial effects derived from sodium bicarbonate in the treatment of this disease, and in order that the attention of the profession may be directed to the subject, and the efficiency of the remedy thoroughly tested, the following case is reported:

Mrs. D., æt. about 27 years, a strong healthy woman, has for years been subject to very severe attacks of acute tonsillitis, which cause intense suffering, and though always energetically treated by poultices, gargles, scarifications, etc., have invariably resulted in suppuration and discharge of pus. She has had four or five attacks of this kind previous to the one under consideration.

On September 7, 1882, had a chill, followed by

fever, pain in the head, and general muscular soreness. On the following day the tonsils began to enlarge. A gargle was obtained from another physician, but had no effect whatever in checking the progress of the disease. On September 9, about 6 P.M., was called to see the patient, and found her suffering very severe pain in the tonsils, which on inspection were found to be much enlarged, the right more than the left, of a dark livid hue, and covered with a white, easily detachable exudation; voice greatly impaired, and attempts at speaking or deglutition very painful, and nothing except small quantities of liquid could be swallowed.

Temperature 101° (Kew); pulse 100. Gave a gargle of potassium chlorate and tincture of chloride of iron in aqueous solution, and ordered it to be used at short intervals. Called at 9 o'clock P.M., but found no improvement in the symptoms.

Resort was then had to sodium bicarbonate, which was thoroughly applied to the affected parts, in *powder form*, by means of an insufflator. The applications caused some retching, and considerable material was ejected with manifest relief. The nurse was then instructed how to make the applications and directed to apply the remedy every hour during the night, which she faithfully did.

Sept. 10.—9 A.M. Temperature 99°; pulse 104. 8.30 P.M. Temperature 100°; pulse 90.

Rested very well during the night and this morning, throat is feeling much better, there being but little pain in, and considerable diminution of size of tonsils, also decided improvement of voice. Gave instead of the sodium bicarbonate an application of the following, viz.:

℞.—Acidi Tannici, ... ʒi.
Iodoformi, ... grs. x.—M.

But this increased the pain and was not repeated. Continued the sodium bicarbonate applications at short intervals during the day, and in the evening found the patient much improved and highly elated at the prospect of escaping from her usual severe suffering.

11th.—9 A.M. Temperature 99°; pulse 86.

Rested well during the night, and is greatly improved in every respect; pain almost entirely gone; swelling greatly diminished, and deglutition but little interfered with. The recovery would have been speedy and uninterrupted had the patient not injudiciously exposed herself before fully recovered, and brought on a return of the symptoms, which, however, speedily yielded to the former treatment without suppuration or any other unpleasant complication.

The remedy should be applied in *powder form*, by means of insufflation, the solution not having the same beneficial effect as demonstrated in a subsequent case.

MEDICAL PROGRESS.

INFLAMMATION, SUPPURATION, AND ULCERATION OF THE TONGUE.—MR. BRYANT read a paper on this subat the meeting of the Medical Society of London held October 23d. He detailed examples of abscess due to injury as well as to idiopathic causes, and showed how this affection has a tendency to get well, and more particularly after an early puncture. He recorded two examples of hydatid of the tongue. The subject of chronic superficial glossitis then received attention, and it was illustrated by cases as well as by a preparation. Superficial ulcerations were then described, and some good examples quoted of the simple dyspeptic ulcer. Ulcers due to local irritation were then described, and cases quoted, in one of which the ulcer had existed for two years, and had been mistaken for a cancer. Deep-seated ulcerations were fully considered, and the differences between the syphilitic, epitheliomatous, and tubercular forms dwelt upon. The tendency for the chronic syphilitic disease of a tongue to pass into cancer was emphasized, and the danger of not fully recognizing the tendency pointed out. The connection between epithelial cancer of the tongue and ichthyosis was demonstrated, and the local character of the cancer noticed. The necessity for the early removal of a cancerous tongue was strongly enunciated, and some good cases quoted in which a long immunity from the disease, if not a cure, had been obtained. The different modes of operation were then discussed, and statistics given of operations, in which the mortality as a whole from the operation was shown to be about ten per cent. Amongst the advantages of the operation was advanced the fact that when a cure does not take place great comfort is given, and that a return of the disease is more likely to occur in the glands of the neck than in the tongue itself. Time not permitting of some remarks being made on tubercular disease of the tongue, it was deferred to another occasion. The paper was illustrated by drawings and preparations.—*Lancet*, Oct. 28, 1882.

TREATMENT OF CUTANEOUS DISEASES BY SCARIFICATIONS.—After diligent study of almost all the cutaneous maladies in which linear scarifications have been resorted to, and after comparing the results obtained from this method with those which have followed the employment of other medical or surgical means—availing himself, moreover, not only of the opinions expressed by the most competent authorities, but also of his own observations in numerous cases—V. BARTOSZEWICZ (*Th. de Paris*, 1882) has arrived at the conviction that in the treatment of many skin diseases, the above-named procedure must be regarded as more prompt and satisfactory in its consequences than any other previously employed.

A rapid improvement and speedy cure, without liability to a return of the disease; white, thin, and smooth cicatrices—such are the advantages offered by this mode of treatment.

In no form of disease, however, are those advantages at once so strikingly apparent and of such capital importance as in the most dangerous, most destructive, and most disfiguring affection of its class—*lupus vorax*.

Not unfrequently, three or four scarifications are sufficent to arrest the progress of the complaint, and after a few months of treatment the cure is complete, the resulting cicatrices being productive of much less defomity than those left in similar cases after any other process.

He is aware that even this method is not without its disagreeable features. The pain it occasions is sometimes quite severe, a troublesome amount of hemorrhage may be produced, and the treatment, now and then, is necessarily protracted, involving a frequent repetition of the process. Yet its incontestable advantages, in the cases to which it is applicable, are so predominant and so far outweigh those derived from any other source, that linear scarifications must take the highest rank among the means of combating many cutaneous disorders, especially those hitherto most difficult of cure.—*Journal of Cutaneous and Venereal Diseases*, November, 1882.

A NEW PROCEDURE FOR MAKING COMPRESSED SPONGE ANTISEPTIC.—Notwithstanding the danger of infection from the use of sponges in uterine therapeutics, they are often a very convenient and useful means in the treatment of metritis of long duration, encouraging resorption, acting as a tonic upon a flabby and weak uterus, and more effective under these indications than either tupelo, laminaria, or mechanical dilators. Iodoform was the substance which occurred to DR. FRAENKEL'S mind (*Centralb. f. Gynäkol.*, August 12, 1882) as a means of rendering sponge tents aseptic. Two patients were chosen for the experiment—one a multipara with a soft, flabby, easily bleeding uterus; the other a primipara, forty-two years of age, with chronic hyperplastic metritis. The patients were placed in the knee-elbow position, *the uterine cavity* was washed out with a warm three-per cent. solution of carbolic acid, introduced through a uterine catheter, and the tents were next adjusted. They were made of compressed sponge, prepared with cerate, rubbed with salicylated cotton, and were then covered with a thick coating of pulverized iodoform. After they had been introduced, a quantity of iodoformed gauze was placed in the vagina. Violent expulsive pains followed this operation, but no fever. The tents were removed after eighteen or twenty hours, and no bad odor was present. In two other cases the uterus was injected in a similar manner, and in the first of these a further injection of a syringeful of liquor ferri sesquichloridi was made with a Braun's syringe. In the second a like quantity of tincture of iodine was injected. Neither of the patients suffered any evil consequences from this treatment. [We do not think that the author's method of injecting the uterine cavity is to be recommended. With the patient in the knee-elbow position, there was the force of gravity, in addition to the injection force, which might be expected to impel the liquid into the Fallopian tubes, and thence into the peritoneal cavity. That no damage was sustained proves only that these particular patients were capable of enduring heroic treatment.]—*New York Medical Journal*, Nov. 1882.

OVARIOTOMY; CLOSELY ADHERENT INTESTINE; RECOVERY.—MR. ROE reports the following case, occurring under the care of MR. SIDNEY JONES at St. Thomas's Hospital: Emily B., a married woman, aged 30, was admitted on November 18, 1881. She stated that her father was living and healthy, that her mother died of bronchitis, and that there was no history in the family of tumors. She had never been strong, but had never had any particular illness; she had been married twelve months, but had not had a child. Her present illness began, about six or seven months ago, with pain in the lower part of the abdomen, and she then first noticed a swelling in that position; this swelling gradually increased, but pain ceased about the beginning of November. She had had pain and difficulty in passing motions and urine about three months earlier; but this had also disappeared. Since the beginning of this illness she had menstruated every fortnight; before she was always regular. On admission, the abdomen was considerably distended, and the girth at the umbilicus was 35½ inches. The enlargement was caused by a firm, tense, elastic tumor, softer just over the umbilicus; the surface was smooth, and there were no nodules. The tumor was of rounded form, and occupied more of the left than the right side of the abdomen; it was slightly movable. The percussion was dull over the tumor, with a resonant note in the flanks. A distinct thrill could be felt through the tumor. The urine, of specific gravity 1014, contained no albumen.

November 25th. Since the patient had been in the surgical ward she had had no pain in the tumor. On the first evening the temperature was 100° Fahr.; since then it had not been above 99° Fahr. On this day the patient was operated on by Mr. Sidney Jones. A median incision was made through the abdominal walls; the peritoneum cut through, and the tumor exposed; the incision was prolonged upwards above the umbilicus; the tumor was tapped, which reduced the bulk of it considerably; some slight adhesions were detached by the finger, but in one place a loop of intestine was somewhat firmly adherent. A ligature was passed around the attachment, which was then divided. The uterus was also found adhering to the tumor: the connection was ligatured and divided. The pedicle of the tumor, which was rather broad, was perforated and tied by a double ligature, divided, and returned into the abdomen. The edges of the incision were sutured by deep and superficial stitches. The tumor weighed over eight pounds, and more than six pounds of fluid ran off from it. The operation was conducted antiseptically. The same evening, after the operation, the patient was fairly comfortable, and breathing easily. The pulse was 84, and the temperature 98.4°.

The patient continued to improve, being troubled only by a tendency to constipation. She left the hospital well on January 3, 1882.—*British Medical Journal*, October 28, 1882.

TREATMENT OF ANAL FISTULÆ BY THE ELASTIC LIGATURE.—At the meeting of the Société de Chirurgie, held September 11, M. TERRIER presented some observations on the treatment of fistula in ano by the elastic ligature. He advises the use of the elastic ligature if the fistulæ are only of short extent, if they result from an acute inflammation, and if the bridge of tissue to be divided is not very thick. Occasionally the ligature causes acute pain; the division is very slowly accomplished, and the ligature must be occasionally tightened up. If the fistula is of longer extent, with diverticula, he often employs the linear écraseur; he passes first a thread through the fistula and then the chain of the écraseur.

Chassaignac advocates the passage first of a drainage-tube through the course of the fistula, and allows it to remain several days, and then employs the écraseur to divide the fistula. When vegetations are present they should be cauterized with the thermo-cautery.—*Gazette Hebdomadaire*, October 20, 1882.

SPONTANEOUS CURE OF VESICO-VAGINAL FISTULÆ.—DR. JULIUS HEYNE (*Inaug. Dissertation*, Halle, 1881) writes that the prophylaxis of vesico-vaginal fistulæ depends mostly on careful watching of the bladder during labor, emptying it when necessary, and not allowing too long-continued pressure of the head in one position. After delivery, careful treatment of any tendency to cystitis, and antiseptic, and if necessary cauterizing, treatment of any ulcerations or sloughs in the vagina. In case a fistula occurs, the first question is when to begin treatment. Here authorities differ greatly, but the author believes that, in cases where the lochia are normal and there is no inflammatory action going on, the sooner the fistula is treated the better. This is perhaps the strongest point in this method. Many ways have been proposed for inducing the spontaneous cure of fistulæ. The most common are drainage of the bladder by permanent catheterization and tampon of the vagina. Substances of all sorts have been used for tampons. The position of the patient has also been considered of great importance. In contradiction of some of the best authorities, the author claims that the *vaginal tampon is of no use*. Its alleged use is, first, to keep the edges of the fistula together. This it does not do, but, on the contrary, separates them. Second, it causes great disturbance to the patient and irritation of

the vagina. Third, it does not prevent the flow of urine through the fistula, but soaks it up or backs it up in the vagina, and thus causes catarrh of the vagina and bladder, and an unhealthy action in the wound. He believes it is best to *leave the vagina empty*. In the second place, his plan for drainage is by a rubber tube inserted through the urethra, not *into* the bladder, but just *to* it, so that the bladder may be permanently drained without having a catheter retained in it. In case of a simple torn fistula, discovered early, this is all that it would be necessary to do. In case of a fistula occurring later, and caused by the sloughing out of a piece of the vaginal wall, the vagina and uterus must be washed out daily with disinfecting solutions and the edges of the fistula touched with stimulants to promote granulation. Two of Prof. Fritsch's cases are narrated in detail to show the advantages of this practice. One was an old case in which several operations had been previously done, the other was a fresh case.

The author concludes as follows: If a fistula is discovered while patient is in the lying-in bed.

The bladder is drained.

The vagina is scrupulously cleansed, but not tamponed.—*Amer. Journ. of Obstet.*, Nov. 1882.

PATHOLOGY OF URÆMIA.—HLAWA and THOMAYER have endeavored to advance our knowledge as to whether uræmia in nephritis is accompanied by any definite anatomical changes, and, if so, what causal connection there might be between these alterations and the symptoms of uræmia. Accordingly, investigations were made by them on twenty-two cases of nephritis, some of which had, and some had not, shown symptoms of uræmia during life; and they have put on record the results (*Wiener Med. Wochenschrift*, No. 39). In all the cases of uræmia the kidneys showed a more or less considerable (generally quite recent) small-celled infiltration; this was not the case with the rest. The infiltration of small cells existed in the neighborhood of the Malpighian bodies, and more especially at that part where the afferent and efferent vessels pierced Bowman's capsule, as well as about the interlobular arteries and the vessels of the renal cortex generally. This cellular new formation compresses the vessels, and so hinders the proper secretion of urine. The authors therefore regard the presence of this inflammatory product as a very important factor in the etiology of uræmia appearing in the course of inflammatory affections of the kidneys.—*Medical Times and Gazette*, October 28, 1882.

EXTIRPATION OF THE UTERUS PER VAGINAM ON ACCOUNT OF PROLAPSE.—DR. DUVELIUS (*Centralb. f. Gynäkol.*, Aug. 18, 1882) reports the case of a woman operated upon by Dr. A. Martin in Berlin. She was forty-six years of age, and had first menstruated at the age of seventeen. At twenty-two years of age she gave birth to a large child, the labor being normal. Thirteen days after delivery prolapsus began to be noticeable to her, and after a time it became excessive. The cervix was amputated afterward, and anterior kolporrhaphy was performed at one sitting, and posterior kolporrhaphy and perinæorrhaphy at another. The operations were complete failures; the parts projected to an exaggerated degree, and had undergone extensive erosion and ulceration. In this condition she presented herself at Dr. Martin's polyclinic. Another anterior and another posterior kolporrhaphy were determined upon; but, when the patient was anæsthetized, the entirely retroflexed uterus was found to be so completely surrounded by the remains of perimetric inflammation that total extirpation alone seemed practicable. After disinfection of the field of operation, incision was made around the remnant of the *portio vaginalis*, which was followed by free hemorrhage. The uterus was then drawn well downward, and an elastic ligature was placed around it. Douglas's pouch was next opened, and the uterus was detached at that aspect with scissors, knife, and fingers. In a similar manner the separation was made anteriorly. The uterus being now dragged forcibly downward, three ligatures were passed upon either side to secure the vessels, after which it was cut away. The stumps of the ligaments were brought down through the wound, and a series of both deep and superficial sutures was passed, securing the cut edges of the peritoneum and of the vagina. The operation was followed by peritonitis, but the patient eventually recovered. Anterior and posterior kolporrhaphy were subsequently performed, and the patient was believed to be entirely cured.—*New York Medical Journal*, November, 1882.

DISPLACEMENT OF THE KIDNEY AS A CAUSE OF HYDRONEPHROSIS.—In these days, when so many and so varied consequences are imagined by some to result from displacements of the uterus, it is not surprising that a surgeon should have thought it possible for displacement of the kidney to lead to occlusion of the ureter. A case is reported in a recent number of the *Archiv für Gynäkologie*, by Prof. KEHRER, of Heidelberg, in which the theory above indicated seemed to him a possible explanation of the facts. But, unlike many theorists, Dr. Kehrer did not accept the hypothesis as satisfactory without putting it to the proof, and on this account his contribution is of much interest. The patient was aged thirty-two, and had a tumor as big as a man's head, which had been first noticed nearly two years previously. It was tympanitic on percussion—a peculiarity which made diagnosis difficult. The abdomen was opened, the tumor tapped (by which gas was let out and fluid drawn off), and then removed, a small portion, the vascular connections of which were too close to admit of its removal, being left behind. The tumor was found to be an enormously dilated kidney, but no obstruction could be found in the part of the ureter which was removed with it. The patient recovered well. In commenting on the case, Prof. Kehrer points out that large hydronephrosis is only met with when there is long-continued, but not complete, obstruction to the outflow of urine, or when the obstruction is intermittent. Absolute closure of the ureter does not produce a renal tumor of great size. Dr. Kehrer's patient attributed her disease to a strain. It occurred to him, therefore, that the strain might have produced a displacement of the kidney, leading to flexion, and consequent obstruction of the ureter. He proceeded to put this theory to the test in the following manner, on the dead subject. He made an opening in the bladder, so that the outflow of fluid from the ureter could be watched, and then inserted a canula into the pelvis of the kidney. All the other abdominal viscera were left untouched. Water was then allowed to flow into the pelvis of the kidney, and the pressure (twenty to thirty centimetres of water) required to make it flow through the ureter into the bladder was noted. Then the upper end of the kidney was loosened from its capsule, and the organ was pushed into a transverse position. This produced no alteration in the escape of fluid. The kidney was then turned so that its pelvis, with the opening of the ureter, looked directly forwards; but this dislocation produced no appreciable hindrance to the flow through the ureter. Dr. Kehrer therefore dismisses, as being without support from fact, the theory that mechanical change in the position of the kidney can, either by compression or by bending of the ureter, lead to obstruction of the flow of urine through it.—*Med. Times and Gaz.*, October 28, 1882.

EHRLICH'S AND GIBBES'S METHODS FOR DETECTING THE BACILLUS TUBERCULOSIS.—M. W. VIGNAL suggests the following additions to these methods:

1. It is desirable to keep the staining fluid with the cover-glasses, during a quarter of an hour, at a temperature of 40° Centigrade (104° Fahr.). The coloring matter penetrates more thoroughly, and the bacilli are more deeply and equally colored.

2. It is not advisable to mount the preparations in water, but in a solution of gum, mixed with glycerine, prepared in the following manner. Equal parts of neutral glycerine and filtered solution of gum are mixed together; the gum is of the same thickness as the glycerine, and should be, before mixing, heated in a water-bath with a small quantity of arsenious acid, in order to prevent the development of fungi.

3. Aniline dyes, as Dr. Heron observes, are apt to fade very quickly, but those obtained at Merck's Fabrik, Darmstadt, are free from this disadvantage. All chemicals furnished by this manufacturer invariably give the same results.

4. The tissues from which sections are made should be hardened in alcohol only. Chromic and picric acids, also salts of chromic acid, prevent the staining of the bacillus. This method of staining is based on the theory that the tubercle-bacillus is enclosed in a sheath, which, by alkalies, is softened and penetrated (aniline water, which serves as the vehicle for the coloring matter, is a liquid alkali), but is hardened by contact with acids. Nitric acid combines with the coloring matter of aniline, to form colorless and soluble salts; this acid is thus effectual in removing the color from the other elements of the tissue not required to be stained.

It happens frequently that physicians desire to ascertain whether tubercles contain the tubercle-bacillus, but they have not the time at their command necessary for making sections. In such cases the following method may be adopted: divide the tubercle with a bistoury, then scrape one of the surfaces, spread the scrapings on the cover-glass, and treat them in the same way as the sputum. In preparations thus made, there are very few isolated bacilli. They are present in clusters, and examined by a low microscopic power represent red or blue spots; but when a high power is used, each separate bacillus is distinctly visible.—*British Medical Journal*, October 28, 1882.

TREATMENT OF GOITRE BY INTERSTITIAL INJECTIONS OF ARSENIC.—DR. GRUNMACH recommends the interstitial injection of a solution of one part of liquor potassii arsenitis to three of water, in the treatment of goitre. In the case reported the tumor was considerably reduced in size and the interference with respiration caused by pressure on the trachea entirely relieved. The solution was injected in amounts equal to one-half or one-third of a Pravatz syringeful, two or three times each week.—*Berliner klin. Woch.*, No. 32, 1882.

DESTRUCTIVE OPHTHALMITIS IN CHILDREN.—MR. NETTLESHIP, at the meeting of the Ophthalmological Society held October 12th, said that the chief object of the paper was to draw attention to the cases of deep-seated disease which more or less closely simulate glioma of the retina in their clinical features. He believed that there were two principal types of morbid change in this class of cases. 1. Iridochoroiditis, either acute and almost purulent, or chronic; the result of either form being inflammatory opacity in the vitreous, with subsequent detachment of the retina, and backward displacement of the ciliary processes by the shrinking of the inflammatory material. Hemorrhage between choroid and retina might occur. 2. Inflammation and condensation of the vitreous (especially in its outer layers), and in some cases also in its antero-posterior axis, probably the result of a chronic severe retinitis, no detachment of retina occurring. Iritis occurred in nearly all cases of pseudo-glioma, and there was often severe inflammation of the eye in the early period of the case. It was particularly as to the causes of these eye-changes that information was wanted. It was not sufficiently known that the condition called pseudo-glioma (whether following severe inflammation of the eye or not) often came on during, or soon after, some severe illness. Whilst in a considerable number the children were syphilitic, measles, whooping-cough, chickenpox, and perhaps pyæmia and sporadic recoverable meningitis, appeared from the cases (published and unpublished) collected by the author to be the commonest antecedent of these eye-changes. He asked especially for evidence as to the nature of the connection between ocular and constitutional conditions.

DR. BARLOW had seen five cases of this disease; three of them with a suspicion of syphilis, to which, however, he attributed no importance, as he could not see any connection. He inclined to pyæmia as the cause of the changes, and mentioned a case of extensive retinal hemorrhage and detachment of vitreous associated with ulcerative endocarditis. In these cases of pseudo-glioma there was often a history of a convulsive attack, with cerebral symptoms, etc. He thought a number of them were embolic.

DR. BRAILEY thought that the cause of these lesions was suppurative inflammation of the vitreous, with consecutive absorption. The tension in these cases was not always diminished; he had found it increased sometimes: diminution of tension could not, therefore, be relied on as a necessary diagnostic sign of non-malignant disease.

MR. WAREN TAY pointed out that double panophthalmitis was not uncommon in epidemic cerebro-spinal meningitis.

DR. STEPHEN MACKENZIE had no experience of this latter disease, but he had never seen cases of panophthalmitis in cases of sporadic cerebro-spinal meningitis.

MR. BRUDENELL CARTER referred to a very full report on epidemic cerebro-spinal meningitis by Prof. Hirsch—a translation of which would be found in the *Transactions of the Epidemiological Society*. He thought, if there was any connection between the two diseases, cases would be sure to be found in this report.—*Medical Times and Gazette*, October 21, 1882.

TREATMENT OF PLACENTA PREVIA.—M. HOFMEIER'S conclusions and methods (*Zeit. f. Geb. u. Gynäkol.*) claim our attention on account of the excellence of his results. His material consisted of 46 cases, 35 of which were delivered in one year, thus offering an excellent chance to judge of a method carried out by one man in so many cases. In judging of his method he first excludes from the 46 cases 3 who were so far gone from hemorrhage when he arrived that there was no chance for any treatment. Of the remaining 43, in 19 the location of the placenta was central, in 16 lateral, and in 8 marginal—a very large percentage of *central*.

The usual rule of treatment is to tampon until the cervix is sufficiently dilated. This rule the author opposes. He scarcely ever uses a tampon, and as to the cervix his rule is only to wait till clear symptoms of labor set in, either in uterine contractions or a funnel-shaped dilatation of the cervix. He then proceeds as actively and early as possible. This rule was followed in 37 of the 43 cases, after poor experience in other methods with the rest. In 19 cases the cervix was partially or wholly dilated, in 18 either entirely closed or with only a funnel-shaped dilatation. The earlier the operation the more of necessity is the choice lim-

ited to the combined external and vaginal version with one or two fingers, the Wigand-Braxton-Hicks method. This was done in 30 cases, the foot was brought down in 3 breech cases, three times internal version was performed and once the forceps applied. The combined turning was practised as long as possible, and the hand introduced into the uterus only when absolutely necessary. The feet having been guided to the os, are seized, and by firm traction the buttocks effectually stop the hemorrhage. In cases of central position of the placenta, the author, in spite of all the arguments against it, is in favor of perforating the placenta and bringing the feet through. He did it in five cases, in 3 of which it was necessary on account of haste and in 2 of which the child was already dead. It gives the mother the best chance, and the child's chance is by any method in such a case extremely small. The rest of the delivery, the author expressly states, should be *slowly* accomplished. The condition of the child may modify this rule, but even this must not make us increase the mother's risk. "One must have the courage to let a doubtful child's life be lost in his hands, rather than subject the mother to increased danger. The child is to be delivered *slowly*. Even so, the author's results were not bad as regards the children. Of 37, 17 were already dead; of the 20 still living, 6 died (3 premature, and 3 from perforation of the placenta). Altogether 63 per cent. died and 37 per cent. lived, which is up to the usual standard. The statistics of the mothers, however, are much better. The author considers in them not only the immediate result, but the after-course of the case. In each case ergotin was given subcutaneously during extraction and the uterus was washed out afterwards with a five per cent. carbolic solution.

Of the 37 patients treated by these rules, *one* died. She had been treated for 24 hours by tampon, and the placenta was foul and offensive when the delivery took place, and she died 17 days after from phlegmon and phlebitis of the thigh. Hofmeier believes she would have surely been saved if action had been prompter. This one case, out of 37, gives a mortality rate of 2.7 per cent., far ahead of any published rate, others having been 10 per cent., 16 per cent., and 40 per cent, After-hemorrhages occurred in some cases, but none which could not be controlled with ergotin, iced and hot-water injections. Of the 6 cases treated at an earlier date, and by the *waiting* method, one died: two had a long, severe lying-in; 4 children were dead. Of the whole 46 cases, therefore, 5 died; 10.8 per cent. The author adds two useful hints as to the location of the placenta. In nearly central location the smaller portion is on the side which is more loosened from the cervix lip. In placenta previa lateralis the proportion in favor of the right side is about 11:4.—*Amer. Journ. of Obstet.*, November, 1882.

OVARIAN CYST SUPPURATING AFTER PARTURITION: HYPERPYREXIA: OVARIOTOMY: RECOVERY.—DR. W. H. DAY reports the case of a woman whom he saw in the fourth month of pregnancy with a vaginal tumor probably ovarian in character. She went to full term and was delivered of a living child. When seen one month after delivery she was suckling her child at the time of his visit, but in a few days she was obliged to discontinue it. The abdomen was greatly enlarged and pendulous. The swelling previously mentioned in the vagina had disappeared, and nothing abnormal here could be detected. Over the abdomen, from the umbilicus to the pubes, the percussion-note was dull; above this the note was tympanitic; turning on the right side of the abdomen elicited resonance on the left, and *vice versa*. He considered that there was a large flaccid non-adherent ovarian cyst, containing a thin fluid. The patient was rapidly losing flesh and strength, and looked very ill. Pain and pyrexia were considerable; but, as she had been only confined a month, and there were no symptoms demanding immediate interference, he advised that the operation should be postponed, and the patient carefully watched.

On visiting the patient three weeks later he found her in great pain and, unable to move, as peritonitis had been present for some days. He advised that the patient should be kept as quiet as possible, and under the influence of enough opium to subdue pain. He pointed out the necessity of waiting a little to see whether the temperature would fall before having recourse to ovariotomy; tapping, in his opinion, being out of the question. If, however, the patient should become worse, he recommended that the operation should not be delayed, even though the temperature should continue high. For the next few days, the temperature fluctuated between 99° and 102°, and the patient was obviously going from bad to worse.

On July 11, Mr. Spencer Wells, with the assistance of Dr. Emmett, of New York, Dr. Godfrey, Mr. Meredith, and himself, removed a large multilocular ovarian cyst. The cyst was very thin. Extensive adhesions to the abdominal wall and to the omentum were separated, after the cyst had been emptied of a large quantity of turbid flaky fluid, not at all fetid. The pedicle was secured by ligature, which was returned. The left ovary and uterus were healthy. On the third day after the operation, Dr. Godfrey reported that the patient was going on well. Temperature 99°; pulse 94; pain diminishing.

Mr. Spencer Wells removed all the stitches on the ninth day. The wound had healed perfectly by first intention, and the patient went on recovering without interruption. The case is a very striking example of the subsidence of fever, as soon as the cause of the fever had been removed.—*Brit. Med. Journ.*, Oct. 28, 1882.

TREATMENT OF PHAGEDÆNIC CHANCRES BY INJECTIONS OF NITRATE OF SILVER.—PROF. THIERSCH (*Centralb. f. Chir.*, No. 27) has been making some experiments with this mode of treatment, and claims that it yields very satisfactory results, though the method should be reserved for the gravest cases, since the injections are so painful that it is necessary to chloroform the patient. A solution of 1 in 1500 is employed, and the injection should be thrown into the thickness of the derm, and not under the skin; the quantity to be injected is 1 c.c., and the injections should surround the phagedænic zone, and be about 1 cm. apart. They should be repeated every week, though occasionally one series of injections will be sufficient to produce a cure. The pain may be allayed by the application of a bladder full of ice.—*Gaz. Méd. de Paris*, Oct. 21, 1882.

ABSORPTION BY THE SKIN OF SUBSTANCES DISSOLVED IN WATER.—At the meeting of the Académie de Médecine, held October 3, 1882, M. AUBERT read a paper with the above title, of which the following are the conclusions:

1. Certain substances dissolved in water may penetrate the skin without their being any external or apparent abrasion of the latter.

2. It appears, however, that there must always be some loss of continuity in the epidermis of the sheaths of the hair bulbs.

3. Absorption is always most active in hairy regions.

4. It is favored by all circumstances, such as friction, which favor injury to the hair follicles.

5. No absorption can take place from medicated baths, no matter how prolonged, unless friction is employed at the same time.—*L'Abeille Méd.*, Oct. 9, 1882.

THE MILK OF INTEMPERATE WOMEN.—The statement of a correspondent of the *Lancet* that the milk of drunken women contains enough alcohol to burn, raises several very interesting issues. First, as to the presence or absence of alcohol in normal human milk. It is, of course, well known that koumiss is an alcoholic liquor prepared from milk by vinous fermentation of the lactose; the change is a slow one, lactose being of all sugars the least susceptible of fermentation. In the milk of the cow and ass, even when freshly drawn, alcohol was found by Béchamp, the alcohol increasing if the milk was allowed to set. This, of course, suggests the same origin for the alcohol as in the case of koumiss. With regard to human milk, the presence of alcohol, even if found, would suggest a similar explanation, but its presence has never been proved. Still, the wife of the working man is not the first person who has made assertions as to the alcoholic milk of alcoholic mothers. On examination, however, these assertions are seen to be founded not on chemical analysis, but on statements as to the effects of the milk on the infant. In an adult these would, of course, consist of exhilaration, followed by swimming eyes, inarticulate speech, unsteady gait, "dyskinesia" (uterine, no doubt, in female children), and even inability to stand. We may observe many, if not all, of these symptoms in most infants at the breast; and, indeed, in this way the inability to recognize one's own father might be taken as evidence of double vision. Is, then, the whole infant population to be regarded as more or less permanently drunk? Again, evidence may be obtained from the remoter effects of alcohol. We have heard a story of a child who died of cirrhosis of the liver from the prolonged exhibition of steel wine; but we may safely affirm that if even a trace of the alcohol constantly imbibed by a larger portion of nursing mothers were to find its way into their milk, specimens of infantile cirrhosis would be far from rare. On the other hand, there is no doubt that some of the alcohol of alcoholic mothers not unfrequently finds its way into the system of their infants by a more direct route than the milk. Setting aside, therefore, the question of alcoholic human milk as contrary to fact, one question still remains—namely, that of the general effects of alcoholic drinks on the milk of nursing women. To this question no short answer can be given. It may be stated at once, that the diet which ensures the best state of health and nutrition also ensures the best milk, but that no hard-and-fast rule can be laid down on the subject. Overfeeding, as well as underfeeding, will often impair both the quality and quantity of the milk. It is, however, as in so many other questions, highly unscientific to lump all alcoholic drinks together, seeing that in those most generally useful, the alcohol is by no means the principal ingredient. To put gin and mild beer and claret together is to collect strange companions, who have indeed, a common property, but little more. We are, however, within the mark in saying that, special medicinal questions apart, no nursing woman should drink spirits; that the less stimulant she can take (consistently with good health) the better; but it is no less true that in mild malt liquors, and especially in sound porter and stout apparently from the special preparation of the malt, we have a very simple and excellent stimulant to the lacteal secretion in many cases where it flags, and even in some cases where malt alone or other stimulants have failed. Of the impoverishment of the milk of women whose health is impared by drinking there can be no reasonable doubt, and too much can hardly be stated in this respect. We quite agree with the blue ribbon orator so far as this, that if all nursing mothers were teetotallers it would be far better for the totality of British babies. In saying this, however, we must add that some infants would, in our opinion, be the worse: but that, on the principle of "the greatest good for the greatest number," more would be benefited than injured. If only those nursing mothers took stimulants whose health was really improved by them, it would be better still. There are facts which seem to show that alcoholism produces in some women a functional or temporary sterility. On this question, being beside our present subject, and also as not unlikely to serve as an incentive, or at least an excuse, for intemperance, we will not enter. Is it not somewhat of an irony of fate that the teetotal cow and ass should produce alcoholic milk, while the alcoholic human female produces none?—*Lancet*, October 28, 1882.

TREATMENT OF MENINGITIS IN CHILDREN.—M. VOVARD, at the recent Congress at Rochelle, made a communication on the mode of treating meningitis in children. Three different morbid processes may occasion meningitis in children; the inflammatory process, strumous processes, or tuberculosis. According to him the frequent occurrence of cure in meningitis leads him to conclude that it is not ordinarily of a tubercular but rather of a strumous character.

He recommends the following line of treatment: at the onset of the disease he prescribes iodide of potassium, and after shaving the head, applies croton oil until a pustular eruption is produced, and then maintains free suppuration, which he believes should be continued until the case is no longer in any danger.—*Rev. Scientifique*, October 28, 1882.

THE TREATMENT OF UNUNITED FRACTURES OF THE BONES OF THE ARM.—MR. ROBERT JONES reports three cases of ununited fracture, one of the radius, one of the ulna, and one of the surgical neck of the humerus, in which he employed with success the method known to the medical profession as that of percussion. Of this there are two varieties. The one consisting in severely percussing the limb over the seat of fracture at long intervals; the other in its daily, but gentle performance. Whichever plan be adopted elastic bands should also be tied above and below the fracture to induce local congestion and thereby facilitate the reparative process. More especially is this necessary at night-time when the circulatory system is less active than during the day. The hammering is performed with an instrument covered by an India-rubber cap, so as not to lacerate the soft structures. In its absence, however, anything almost will suffice. In Case 1, the bone being somewhat deep seated, he adopted the method of severe hammering, which he performed once a week. The patient tolerated it very well and complained but little of the pain, although the India-rubber tubes tied around his arm at night made him very restless. He applied no splints, but merely permitted the carriage of his arm slung in hammock-like fashion. This lasted five weeks. After each beating a good deal of swelling and even some contusion marked the occasion. At the end of the fifth week, having noticed a decided thickening of the ends of the bone, he applied splints for four weeks, removing them in time to find union complete. Case 2 is more interesting because more rare. In treating the patient he dispensed with the elastic tubes, and the bone being superficial it was, of course, better to try the gentle mode of percussion than that adopted in Case 1. Accordingly he hammered twice a week and kept the splints firmly applied. In a little over four weeks union was firmly established. In both these cases the treatment gave the patients hardly—if indeed any—more inconvenience than they had already endured. Case 3 differs from the others in being a less confirmed non-union. The patient was ten weeks in splints after

a primary delay of nine days; and it is impossible to say but that another month's continuance would have produced union. He thought it best, however, not to trust to this alternative, and, using his fist for a hammer, he worked away twice a week for nearly two months, with completely satisfactorily results. He mentions that the elastic tubes may be applied immediately after the gentle method, but it is best after the severe mode to wait until the local irritation commences to subside, and thereby prolong it. Should the contusion be very marked, it would, of course, be unwise to apply them at all. As a matter of detail, he adds that the tubing should not always be tied to the same spot, or else ulceration may result. Generally speaking its application at night-time is quite sufficient, and affords the arm very acceptable respite during the day.—*Lancet*, October 28, 1882.

A NEW TREATMENT FOR PURULENT CONJUNCTIVITIS.—The treatment MR. H. L. FERGUSON has been using at the Dublin Infirmary for many months past consists in constant cleansing with an iced 4 per cent. solution of boracic acid, and when the more acute stage is over, touching the conjunctiva with a 10 grain solution of nitrate of silver subsequently neutralized with a solution of salt.

The results with this treatment were on the whole satisfactory, his observations coinciding with those of Mr. Simon Snell, published in the *Ophthalmic Review* for October; but convalescence was slow.

It occurred to him that if the boracic acid were applied to the conjunctiva in a finely powdered state its action would be quicker and more certain, and its application in this way seemed to be free from the objections to iodoform.

Briefly stated, the results of his observations have been: 1. That the application of the finely powdered boracic acid to a discharging conjunctiva checks the discharge completely for a period varying from two to twelve hours, and in the milder cases the first application is sufficient to stop the discharge altogether. 2. When the discharge reappears it is usually less in amount and more watery in character, and a very few applications of the powder stop it entirely. 3. The conjunctiva is then red and succulent but dry, and if touched two or three times with a solution of nitrate of silver it rapidly returns to its normal state.—*Ophthalmic Review*, November, 1882.

NEW TEST FOR THE DETECTION OF ALBUMEN IN URINE.—DR. GEORGE JOHNSON, F.R.S., of London, is now using picric acid for the detection of albumen in the urine. This test was suggested to him by his son, Mr. G. Stillingfleet Johnson, who has long labored at chemical research, and believes that the test is free from fallacy. A saturated solution of picric acid has a specific gravity of 1003, and immediately coagulates any trace of albumen which may be present in the urine to which it is added. The delicacy of the test is strikingly demonstrated when slightly albuminous urine is poured on to the surface of nitric acid and the picric acid solution is added on the surface of the urine. An obvious advantage of the test is that the powdered picric acid may be so conveniently and safely carried in the pocket ready for the immediate and efficient examination of any urine suspected of being albuminous. It is only necessary to throw some of the powder into the suspected urine while it is warm, and to agitate slightly, in order to produce an obvious cloudiness if any albumen be present.—*Boston Medical and Surgical Journal*, November 9, 1882.

TREATMENT OF TYPHOID FEVER.—PROF. KAULICH (*Jahrbuch f. Kinderheilkunde*, xvii.) has obtained excellent results in the treatment of typhoid fever by the employment of the wet pack and quinia; he believes that it is on account of this method of treatment that he has not lost a single child from the disease under his care. In the first hours of the afternoon when the temperature is commencing to rise, he wraps the child in a wet sheet, and while rubbing the child vigorously renews the cold water sufficiently often to prevent the sheet becoming warmed. Sulphate of quinia is then given in doses, varying with the nature of the case, of from fifty centigrammes to two grammes.

This mode of treatment always reduces the temperature, sometimes below normal. M. Kaulich does not believe in delaying too long the return to nourishing food, as he finds that by early feeding the duration of convalescence may be considerably shortened.—*Rev. Scientifique*, October 28, 1882.

ON A PUPILLARY PHENOMENON OBSERVED IN CERTAIN PATHOLOGICAL CONDITIONS IN EARLY CHILDHOOD.—In certain affections of early childhood, with or without convulsions, with or without appreciable lesions of the brain, PROF. PARROT shows that during the period of coma, which is constant, pinching the skin, particularly in the epigastric region, causes a momentary, marked dilatation of the pupil. This effect is most marked in the following lesions of the nervous centre: tubercular meningitis, hemorrhage under the pia mater, chronic hydrocephalus, and in other conditions where there is cerebral compression. On the other hand, in other morbid conditions where coma exists without convulsions, the pupil, which is usually contracted, does not dilate on pinching the skin.

M. Parrot reports twenty-two observations bearing on these two conditions, and gives the following as his practical conclusions therefrom. A child in a comatose condition, whether suffering from convulsions or not, and in which the pupils do not dilate on pinching the skin, is not attacked by meningitis or submeningeal hemorrhage, he is in an advanced condition of asphyxia, and his death is imminent.—*Revue de Médecine*, October 10, 1882.

GRAVES'S DISEASE, COMPLICATED BY OPHTHALMOPLEGIA EXTERNA.—DR. FRANCIS WARNER read a paper on this subject at the meeting of the Royal Medical and Chirurgical Society. The patient was a woman twenty-five years of age, and was the subject of Graves's disease of four years' standing. There was a marked mental excitability, and she was frequently attacked with gastric crises, vomiting, dyspnœa, and palpitation. Both eyes were nearly immobile, a condition not accounted for by the proptosis; this had existed five months before admission into hospital. Limitation of movements was not equal in the two eyes, and was greater in the horizontal than in the vertical directions; double ptosis was marked. There was also bilateral paresis of the seventh and fifth pairs of nerves, and marked tremor of the legs. There appeared to be no evidence of syphilis. Under treatment the goitre subsided, and the general condition greatly improved, but the ophthalmoplegia remains. The unequal amount of paralysis of the two eyes is taken as some evidence of an independent nerve-centre for the movements of either eye, and this is supported by observations in infants in deep sleep and adults in coma, when either eye may be seen to move separately and independently. Again, the greater limitation of movement in the horizontal as compared with the vertical direction is pointed out as probable evidence that separate centres govern these movements respectively.—*Lancet*, October 28, 1882.

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SATURDAY, NOVEMBER 18, 1882.

INSANE IMPULSE.

ALMOST daily there occurs in some part of this country a startling crime whose motive exists in an insane delusion. In that devotion to liberty which closely approximates to license, we are unwilling to permit any one to be deprived of his freedom who has any possible claim to be regarded as sane. A writ of *habeas corpus* is always attainable by those who have the means to employ acute attorneys and to fee willing experts. The result is that the most dangerous lunatics are constantly at large—for those are most dangerous who to good address, education, and a proper purpose in life, add a delusion which to them seems in the nature of a mission. Such a man soon learns that his view, or his "mission," exposes him to the mistrust of those about him; he becomes very artful in concealing it, but none the less nourishes his purpose in secret.

If such a person can talk intelligently on ordinary topics, especially on affairs of business, and is not induced to talk on his particular delusion, he will appear sound to those who are not aware of this delusion, and physicians unfamiliar with such cases will be readily found to testify strongly in favor of his sanity. Such an example occurred a few days since in New York. A man confined in an asylum for delusions which had led to homicidal attacks, was brought out on a writ of *habeas corpus*. The asylum-physicians testified to the existence of delusions of a most dangerous character, but two physicians who appeared to be ignorant of the commonest knowledge of mental disorders, and who are unknown as experts, came forward to swear him sane. One of them, after hearing the testimony of those who had had the lunatic in charge, asked to have the opportunity of re-examining him. The Court gave the necessary permission, and after concluding his investigation the pretended expert was again put on the stand, when he admitted the existence of delusions, but still adhered to his original statement that the prisoner was sane. He appeared to regard him as sane because he could talk intelligently on various topics, and the delusions did not affect his reason and judgment on ordinary matters!

That a physician without any acquaintance with the subject of mental disorders, and simply because he is a physician, should be listened to gravely by a court as an expert, is surely a remarkable phenomenon. That any physician should not know the significance of delusion as an evidence of mental unsoundness, is hardly less astounding. Every lawyer will admit that the existence of a delusion is proof of insanity. The error into which some uninstructed physicians fall, consists in the inability to differentiate between illusion or hallucination, and delusion. A man may have an illusion or hallucination, and yet be able to correct it, but it becomes a delusion when his reason and judgment accept it as real.

A man with a delusion associated with destructive notions, is a most dangerous person, although quite able to appear rational on ordinary subjects. He is the more dangerous because he cannot be confined in due process of law, or if confined can obtain a writ of *habeas corpus* and on the trial of his sanity, procure pseudo-experts by the score to swear him sane. Every day there occur appalling instances of the danger to the public, of giving liberty to such subjects. A few years ago a physician of Milwaukee, was called at night-fall to his front-door by a woman, who rode up in a great hurry in a carriage. As he spoke to inquire her errand, she shot him dead. She was insane, and by mere accident seeing his name in a paper, associated it with some delusion she cherished, although he was an absolute stranger to her, and to her history. Our readers will recall many examples. During the excitement incident to the Guiteau trial, several lunatics moved by deadly purposes, appeared in Washington. We have, heretofore, set forth the well-marked distinction between such lunatics and the men of the criminal class to which Guiteau belonged.

Suicidal purposes are usually entertained by the melancholic. Weighed down by a mountain of grief and supposed wrong, or oppressed by the prospect of a life filled with horrors, they gladly seek a relief from miseries which death alone can

cure, consoling themselves with the idea of the Greek anthology:

"Why fear ye death, the parent of repose
That brings relief to penury and to pain?
His presence once, and only once, he shows,
And none have seen him e'er return again."

In such melancholics the purpose may be only half-formed—barely, indeed, conceived as desirable, and yet at last a sudden impulse sweeps away all counter considerations. The final motive cause may be very trivial indeed, but in the storm of emotions aroused by it all voices are silenced but the cry for the peace of the grave. So small indeed seems the departure from a healthy mental state in such cases that he would be a bold man who could pronounce for seclusion and proper restraint. Furthermore, our notions of allowing the largest liberty to individuals, and the clamor of an irresponsible press with its oftentimes ignorant writers and vituperative criticisms of the conduct of scientific men, constantly oppose action for preserving the safety of society. In respect to this, as to many other evils of our time and civilization, the only hope is in the more general spread of knowledge. The time may come when properly qualified experts will pass on these questions, and press and public will alike accept their decision as final. Meanwhile the number and character of the homicidal and suicidal acts which occur in every community, due to insane impulse, demand a suitable remedy now. It is to be found in a more careful study of these cases, in wiser regulations as to the release of the insane from confinement, and in a more rigid definition of an expert.

DOCTOR ZAY.

FOR centuries a great variety of physicians have figured in fictitious literature. Few writers who attempted to display human life have found it possible to omit all mention of the useful, if not essential, personages who superintended the most important entrances and exits of their heroes or heroines. The medical men have fared on the whole but indifferently well, and, generally through ignorance, have more often been caricatured than truthfully portrayed. Between the biting sarcasm of *Le Malade Imaginaire* and the photographic accuracy of *Middlemarch*, there have been many attempts at depicting the life or character of physicians, most of which, viewed from a professional standpoint, have been lamentable failures. Surely, however, for unlearned assumption of technical knowledge and for innate improbability this latest work of Miss Phelps is entitled to the palm. "Boston women must have an outlet," says one of the *dramatis personæ* of this remarkable production; but let us hope that in the future it may be found in some other direction. We do not believe that even Boston ever produced such a hybrid; such an absolutely inconceivable combination of antagonistic qualities as the female homœopathic physician who figures as the heroine. Young, beautiful, graceful, cultured, sympathetic, her eyes filling with tears at the mention of a lost relative, at the story of a deluded girl, or at the death of a pauper baby, she sets compound dislocations, ligates wounded arteries, hauls drowning men out of mill-dams and resuscitates them, wrests revolvers from maniacs, and fairly revels in an atmosphere of blood, ether, diphtheria, scarlet fever, delirium tremens, and sugar pellets.

If ever love-making was pursued under difficulties it is in this volume. Mr. Waldo Yorke, who began his courtship with what she tells him was a "beautiful dislocation," several severe flesh wounds, and concussion of the brain, kindly has a secondary hemorrhage, and after she has "firmly and fearlessly" arrested that, has only strength enough left to say "Write to my mother. Don't say you are not a man; only say you are not an allopath;" after which he faints—as he deserved to. This, however, is a mere prelude. She attends him through a dangerous illness, consulting by telegraph with a world-renowned homœopathic surgeon of Bangor, whose identity is carefully concealed, and then proceeds to annoy him in various ways.

Whenever he becomes affectionate, her face settles "into an intent and studious form, like a hardening cast," or lights up "with the fervor of the symptomatologist." When she grasps his hand, a procedure not unattended in ordinary love-making with immediate retaliation, he of course feels momentarily encouraged, but without reason; "she lays it down again as if it had been a bottle or a bandage." When she manipulates his ankle and he naturally manifests some excusable warmth, she orders him "one powder dry on the tongue every four hours;" when she takes him out driving, she leaves him to go in and "sew up enthusiastically" a "severed femoral muscle," while he nauseates over the smell of the ether which pervades even the outside atmosphere, and when she rejoins him she views him with a "cool, scientific eye" which, under the circumstances, must have made him tremble for his own femoral muscles. She orders him on different occasions, usually in response to affectionate advances, *cham. 5 m.* and *ars. 2 m.*, and *carbo vegetabilis*, and once "after a silence fraught with significance," says she believes she'll give him "nux." There is no record, however, of her carrying this terrible resolution into effect. She even accuses him, when his eyes burn with ardor and the "values of his face are deepened," of having "a cinchona look;" and when he musters up courage to announce his love, she tells him it is a "nervous sinking-turn," and "without perceptible hesitation"

takes out her medicine-case, the contents of which on this one occasion he repudiates. She finally, of course, consents to leave her practice, which in a small country village averages about fifty visits a day and nets her five thousand dollars per annum, to go as his wife to Boston, with the stipulation that she shall continue to relieve suffering humanity and go out when the night bell rings, or oftener if she chooses.

Justice compels us to admit that Miss Phelps has endowed her with certain characteristics by which we recognize the genuine homœopath. When little Johnny Sanscrit is apparently about to die with diphtheria, she says it is because they did not sooner send off Dr. Adoniram, the "allopath," whom she has previously told her patient she would not trust, and adds bewailingly that "that is too often the way; the patient comes into *our* hands just in time for us to sign the death certificate." Subsequently, however, she is consoled, as Johnny recovers, owing to "a remarkable adaptation of *Lachesis*." She also speaks of herself as the "woman healer," and, indeed, throughout the book, is not at all modest about her professional attainments.

Miss Phelps is a story-teller of no mean ability, and the feminine side of Dr. Zay's character is finely outlined and attractive, but its attempted combination with masculine qualities unusual even in men, and with an offensive display of what the author absurdly imagines to be "unquestionable learning," makes her a ridiculous impossibility—"a faultless monster whom the world ne'er saw."

THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE AND THE ARMY MEDICAL MUSEUM.

A GENERAL regret has been felt by the medical profession that Congress adjourned without making provision for the safe keeping of these important collections. The building in which they are placed is not only insufficient in size and too frail in construction to bear the necessary weight, but it is perilously unsafe, both in itself and its surroundings, in case of fire. It is melancholy to reflect that the largest medical library in the world and the rich accumulations of the museum might disappear utterly in the conflagration of an hour. No physician needs to be told of the value of the library or of its remarkable opulence in medical periodicals, but Congressmen are perhaps not generally aware of the *national* character of this collection and that it is the great mine of knowledge to which the profession of the whole country resort at need. Its destruction would be a loss which no money could replace, and it is earnestly to be hoped that in the coming session an appropriation may be made to provide the fire-proof building asked for by the Surgeon-General.

We have been told that objection has been urged on the ground that the Congressional Library will before long be provided with new quarters, and that the library of the Surgeon-General's office should be consolidated with that collection. Next to its destruction, no worse calamity could befall it than such a change.

Its successful management and the marvellous rapidity with which its stores of learning have been collected are due to the knowledge and zeal of its *medical* administrators. If removed from the control of the Surgeon-General and added to the ponderous accumulations of the Library of Congress, its especial character will disappear, and it will become, like the medical sections of the great public libraries of Europe, of comparative unimportance and of little availability. Every travelled physician knows that in the great cities abroad it is the exclusively medical libraries which attract him. If in London he would not bewilder himself by an excursion to the reading rooms of the British Museum in search of professional lore, but he would straightway proceed to the library of the Royal College of Surgeons, the Royal Medical and Chirurgical Society, or some other purely medical collection.

It is the clear duty as well as interest of the profession to bestir itself in this matter. Let every physician who can, either in person or by letter, convey his views to a senator or congressman, urge upon him the importance of providing a fire-proof building for the library and museum (which ought never to be separated), of keeping the library under the control of the Surgeon-General, and of providing for the completion of its index catalogue, the usefulness of which can hardly be overestimated. Whatever is to be done in the way of acquainting Congress with the opinions and wishes of the medical profession on this matter, should be done within the next three or four weeks, for it is the winter for the short session, and after Congress has met the members will as a rule be too busy to attend to any new business. The House Committee on public buildings and grounds, before which the Surgeon-General's application for a fire-proof building comes, is composed as follows: William S. Shallenberger, Pennsylvania; J. H. Lewis, Illinois; M. E. Cutts, Iowa; M. L. DeMotte, Indiana; J. A. Scranton, Pennsylvania; Nicholas Ford, Missouri; J. Hyatt Smith, New York; Philip Cook, Georgia; J. W. Singleton, Illinois; H. A. Herbert, Alabama; Lewis Beach, New York.

POST-GRADUATE COURSES—CLINICAL OR DIDACTIC.

THE recent development of post-graduate instruction may be due to the expressed and implied needs of young practitioners unfamiliar with the mechanical details of their work, or of older practitioners become rusty, or to the restless ambition of rising

experts, eager to make their way in the most profitable sphere of professional activity. The man who has recently graduated, how high soever his social position may be, how suave his manners, how earnest his purpose, finds that some practical knowledge is necessary to his success; and the rising expert has a keen desire to recommend himself to the favorable consideration of those from whom his future patronage must be largely derived. The former has, after unpleasant, often mortifying experience, learned what he requires to recommend him, effectively, to the public, and the latter for satisfactory reasons of his own is solicitous to instruct him in the much-needed information. Thus we have two powerful motives for the organization of post-graduate schools.

The questions to be determined at the outset are, what is most useful to the physician anxious to qualify himself? In what mode may he best attain to the necessary qualifications? To answer these questions satisfactorily, the kind of practice to be pursued must first be determined. Does the physician desirous of obtaining knowledge, intend to engage in a general or a special practice? If the former, he must have a well-grounded knowledge of the whole field—if the latter, he may confine his efforts to the particular section which he intends to cultivate.

In New York, the post-graduate idea has taken two directions. One school combines lectures with clinical and practical demonstrations; the other deals exclusively with clinical work. In a recent editorial, we decidedly commended the efforts made by our New York *confrères* to give practical direction to the two ideas of post-graduate instruction. But we are of the opinion that much of this method of instruction should be introduced into the regular sub-graduate curriculum, and that without the knowledge that is thereby obtained, a student is not fitted for graduation. The tendency of medical teaching now is to adopt this view and to supplement the didactic lectures with practical and clinical demonstrations in which the students themselves take an active part.

Recognizing the great need of practical eye, ear, and hand training, as a means of fitting the medical man for the work of his profession, Harvard and the two leading medical schools of Philadelphia have regular exercises in laboratory and hospital to secure this to each person. In every department—in clinical medicine, operative surgery, chemistry, materia medica, and physiology—each candidate for the doctorate is taught practically in the best sense of the word. At the Jefferson Medical School and at Harvard there is also an obstetrical laboratory, in which the principal obstetrical and gynæcological operations on the female cadaver are performed in the regular curriculum, in the same way as on the living subject. At the University of Pennsylvania this course is embraced in the spring session, and we are informed that plans are being matured by which each student before graduation shall receive instruction in practical obstetrics at the bedside. The students are thus enabled to carry on investigations, and to perform operations, which in respect to the living subject, they are permitted to witness only. When each student or graduate performs in its entirety, the various operations on the cadaver, he must be much better instructed than he who merely witnesses or assists the surgeon performing them. Indeed, we believe that the most careful surgeons perform on the cadaver any delicate operation, before cutting the living.

In the methods inaugurated for post-graduate instruction, there should be a combination of the clinical with the practical work in laboratory. Hence we fear that a merely clinical school will not accomplish the same good purpose.

New York has certainly taken the initiative in the organization of schools, devoted solely to the instructions of graduates. Philadelphia has for several years provided suitable courses—as we have seen—for the same purpose, in connection with the existing medical colleges, and at the numerous special hospitals. It would also certainly be doing injustice to the Western schools if we failed to recognize the work which they are doing in the same way. Rush, the Medical College of Ohio, the University of Louisville, have provided excellent systems of post-graduate instruction, to which the profession has had access for several years. *Palmam qui meruit, ferat.*

IN connection with the opening of the course of lectures at the Washington Training School for Nurses, on October 23, Dr. D. W. Prentiss, of the faculty of instruction, in his address touched upon three points which are of no little interest.

The want of any means of systematic instruction for male nurses is felt everywhere. We do not know of any place which affords such instruction for men. Their only opportunity to acquire knowledge is in the school of experience in our hospitals. Surely if women have benefited so much by systematic training, men would find even a still greater benefit. A much larger number of men are engaged in nursing than is generally believed, and the services of the best of them are in constant and urgent demand. Yet in the proper sense there is not in any, even of our large cities, a single "trained" male nurse.

Dr. Prentiss also stated that the project of a "Home" which would also serve as a suitable place for a directory for nurses, seemed to be practicable in the near future. He quoted at length from the

circulars of the Philadelphia Directory, to show the need and the usefulness of such an institution. We shall be glad to chronicle its establishment in Washington, where the presence of so large a floating population would make it so especially desirable and useful.

By the way why do not all our Training Schools have formal "commencements?"

WE are glad to see that DR. R. B. BURNS of this city, was acquitted in a malpractice suit brought to recover damages in a case of encysted tumor of the breast on which he operated. Not the slightest evidence seems to have been adduced to show that his judgment was not good and his treatment not eminently proper. But none the less does such a suit involve large loss of time and practice and considerable outlay of money and a worriment and annoyance which to most men are more harrowing and wearing than aught else.

REVIEWS.

THE TREATMENT OF DISEASES BY THE HYPODERMATIC METHOD. By ROBERTS BARTHOLOW, M.A., M.D., LL.D., Professor of Materia Medica and Therapeutics in Jefferson Medical College. Fourth edition, revised and enlarged. 12mo. pp. 365. Philadelphia: J. B. Lippincott & Co., 1882.

JASON planted the dragon's teeth and an army represented their fructification. The history of planting the conception of the hypodermatic syringe forms the introduction to the writer's thoughts on hypodermatic medication, and lo! what a progeny of chapters follow: over three hundred good-sized pages, in which more than twenty medicinal substances receive notice. Completeness and succinctness characterize the book. Morphia and atropia receive an exhaustive account of their physiological and therapeutical action. The antagonistic effects of the latter drug with physostigma, pilocarpine, muscaria, bromal hydrate, and aconite, will give an idea of the wide range of subjects covered. The thoroughness of each article bears witness to the learning and research of the author. It is an epitome of the subject and much valuable information can be gained by its perusal. But as few things in this world can be said to be complete, we notice that although the hypodermatic use of pilocarpine is discussed in relation to its efficacy to abort malaria, no allusion is made to the use of chloroform, an agent which has been employed for the same purpose and reported on by the late Dr. Berens, of this city. The size of the volume has been increased by the introduction into some of the chapters of material more appropriate in a general treatise on therapeutics. Considerable space has been given to the toxicology of special drugs, as, for instance, morphia and atropia, and the directions for the use of strychnia in spinal affections do not apply only to the hypodermatic use of the drug.

CLINICAL LECTURES ON THE DISEASES OF THE NERVOUS SYSTEM. By THOMAS BUZZARD, M.D. Lond., etc. 8vo. pp. 466. Philadelphia: P. Blakiston, Son & Co., 1882.

THIS book ought to have been entitled, lectures on some diseases of the nervous system. It is occupied for the most part with tabes dorsalis (posterior spinal sclerosis) and associated disorders. The first two lectures are on tendon reflex, and give a full account of the objective phenomena which are held to be due to a reflex action. The elements of the reflex are these: the reception of an impression by the peripheral nerves and its transmission to the cord; the development of a motor impulse and its reference outwardly to the muscles concerned in the action. In tabes dorsalis, this tendon reflex fails, because of a break in the circuit at the roots of the sensory nerves—in the posterior columns.

Lectures III. and IV. are occupied with infantile paralysis, and a good account of "the reactions of degeneration" is given—a topic well worthy of study by those who think electricity of little use to the physician.

The greater part being devoted to various phases of tabes dorsalis, this malady is fully discussed. He gives a particularly full account of the joint changes, and the gastro-intestinal derangements—"gastric crisis"—which belong to this strange disease.

Several forms of paraplegia, including the cervical and syphilitic, are discussed. Every topic is handled with care and even with minuteness, but the author makes the impression that he accomplished his task with ease because of an exact acquaintance with the subjects discussed. The work is easy reading, for, although many of the topics are difficult, everything is clearly stated, since the author himself has formed a definite conception. The mechanical execution of the work is excellent.

CEREBRAL HYPERÆMIA—DOES IT EXIST? A CONSIDERATION OF SOME VIEWS OF DR. W. A. HAMMOND. By C. F. BUCKLEY, B.A., M.D., formerly Superintendent of Haydock Lodge Asylum, England. Pp. 129. New York: G. P. Putnam's Sons, 1882.

THIS brochure, as its title indicates, is a controversial work, intended solely to disparage Dr. Hammond's views. These views may, or may not, be correct, and having been published to the world are legitimate objects of a proper professional criticism. But is the criticism just? What is the motive? There is abundant evidence that the critic has transcended the proper boundaries of professional criticism, and has not correctly stated the views which he professed to be combating. He is therefore handicapped at the outset with a load which renders his best efforts impotent. What his motive may be does not appear. He seems to be an Englishman who has adopted this, as the readiest means for making himself known to the medical profession of this country. Quite apart from the merits and demerits of Dr. Hammond, or of his critic, there is the important clinical fact—*does cerebral hyperæmia exist?* Dr. Hammond says it does, and many of the ablest clinicians of our time say it does exist. Dr. Buckley denies it. After a resurvey of the question, it is our deliberate conviction that Dr. Buckley is wrong. Dr. Hammond may not be right in the views which he has promulgated, but it seems to us Dr. Buckley is clearly wrong. There are some unquestionable clinical facts and physiological studies which seem to prove that the amount of blood in the brain varies from time to time; that it is now present in excessive quantity—that it is now deficient in amount. That the intra-cranial blood pressure may not vary with the conditions affecting it, is certainly very extraordinary doctrine. There is a mechanism—the cerebro-spinal fluid moving through the foramen magnum—by which the blood-pressure is regulated. When the vessels are full the perivascular lymph spaces are encroached on,

the cerebro-spinal fluid is displaced. The converse is equally true: when the cerebro-spinal fluid is excessive, the blood is displaced. Such is the mechanism of the "wet brain," as described by pathologists—a wet brain, because it is an anæmic brain.

The best authorities recognize cerebral hyperæmia as a distinct morbid state. For example—Jaccoud, gives an excellent account of the several forms in which this state manifests itself. Trousseau devotes a lecture to it; Flint and Bartholow, also, recognize it as a morbid state; only Dr. Buckley questions its existence. We should be inclined rather to regard Dr. Buckley as mistaken, than that those who have made the subject a study have failed to recognize its true relations.

SOCIETY PROCEEDINGS.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, October 20, 1882.

(Specially reported for THE MEDICAL NEWS.)

R. A. KENNEDY, M.D., PRESIDENT, IN THE CHAIR.

AFTER routine business DR. OSLER exhibited the following specimens:

AMPHISTOMA CONICUM,

a fluke which is not uncommon in the paunch of ruminants. The specimen showed forty or fifty adherent to the mucous membrane by means of the powerful caudal sucking disks. They appear to be especially abundant in the cattle in Pictou Co., Nova Scotia, as nearly all the animals examined in connection with the so-called "Pictou cattle disease" presented numerous examples.

FATTY DIARRHŒA.

A small bottle full of oily material passed by a woman aged 33, a patient of Dr. Woolverton, of Hamilton. The woman had been ailing all summer with slight gastro-intestinal trouble, and latterly had been passing a quantity of fat with the stools, as much as a pint in twenty-four hours. It was yellowish in color, and of the consistency of melted butter, and was sometimes passed unmixed with the feces, usually with a gush of wind. She had a dislike to fat and only took what was contained in ordinary diet.

DR. WOOLVERTON thought that more was passed than could be contained in the food. In a subsequent letter he stated that after lasting ten days the fat has entirely disappeared and the woman felt much better.

OBLITERATED SUPERIOR VENA CAVA,

from a patient of Dr. Wilkins, who had been in hospital about three months with symptoms of venous obstruction in the chest—lividity, swelling of face and upper extremities, urgent dyspnœa and constant dropsy of the pleura, necessitating frequent tappings. The mode of onset, and the origin of the trouble were obscure. At the post-mortem the vein was found to be completely obliterated and converted into a firm fibrous cord about the thickness of the thumb; firm organized thrombi extended into the internal jugulars. Section of the vein an inch from the auricle showed a dense grayish-white peripheral portion and a central grayish-red, more porous substance. No other lesion was found. Dr. Osler remarked that this was the third specimen of obliteration of the great venous trunks, which had been presented to the Society within the past three years; the others being obliteration of the inferior vena cava (*Journal of Anatomy and Physiology*, 1879), and obliteration of the portal vein (Ibid., 1882).

ABSCESS OF LUNG IN PNEUMONIA.

DR. MOLSON narrated the case. An intemperate woman, aged 35, was admitted to the General Hospital on the fourth day of an attack of severe pneumonia. Resolution did not take place, and on the tenth day she began to spit up quantities of very offensive, purulent matter. The temperature, which had kept up to about 104°, fell to 99°, and death followed on the eleventh day. There was extensive pneumonia of the right lung, and the specimen exhibited showed a large, ragged abscess cavity in the lateral region of the lower lobe. There was also recent pericarditis, and a thin sheeting of lymph lined the inner surface of the dura mater of the right side.

TAPPING THE GALL-BLADDER.

DR. OSLER showed eighteen ounces of thick bile, obtained by aspiration from the gall-bladder of a patient with the following history: A farmer, aged 58, of average health until the spring, when he began to have pains in the back and shoulders—did not feel "right in himself." In June he noticed that the urine was dark-colored, and that his face was becoming yellow. There has been a heavy dull pain over the liver, but never paroxysmal attacks or any vomiting. The jaundice has deepened, and he is now intensely icteric. The stools have been clay-colored, and the itchiness of the skin has been intolerable. He has lost flesh, but the appetite has been uniformly good. The liver was found greatly enlarged, smooth, painless, and projecting from beneath the right border was a rounded tumor, evidently a distended gall-bladder. This was aspirated and emptied. No gall-stones could be felt. The jaundice has not been relieved, and the nature of the obstruction has not yet been determined.

PHLEGMONOUS CYSTITIS.

DR. BELL exhibited a bladder from a man who had fallen into the hold of a vessel and broken the third and fourth dorsal vertebræ. He lived for ten days, and had symptoms of intense cystitis. The bladder was swollen and the mucous membrane transformed into a dirty, yellowish, sloughy layer. The inflammation had extended up the ureters to the kidneys; there were sloughs on the mucous membrane of the pelves, and scattered foci of suppuration through the substance.

SENILE ATROPHY OF BONES.

DR. F. J. SHEPHERD exhibited the femurs of a woman between 80 and 90 years of age, the subject of general fragilitas ossium or senile atrophy of the bones. The left femur had the characteristic deformity of osteo-arthritis, the neck being shortened and the head enlarged, and the acetabulum also enlarged. Just above the condyles in this bone was an old united fracture. In the right femur there was an ununited intra-capsular fracture. Dr. Shepherd remarked that all the bones in this case presented an unusual degree of fragility; the astragalus could be broken by pressure of the finger and thumb; the skull cap was only of parchment thickness.

CANCER OF THE ŒSOPHAGUS; PERFORATION OF THE LUNG.

DR. GEORGE ROSS showed the specimen and gave the following history: J. M., aged 54, was admitted to hospital October 10, with cough, pain in the epigastric region, and weakness. In May he had had pain beneath the sternum and in June there were symptoms of obstruction in the gullet; solids would be regurgitated, and he has lived on soft foods ever since. About three weeks ago he began to cough and noticed a very foul odor with the expectoration. When admitted he was anæmic and emaciated. At the base of right

lung there were bubbling râles; expectoration seropurulent and fetid. Liver enlarged, smooth, not particularly tender. A large sized bougie was readily passed into the stomach, and the patient swallowed dry bread without difficulty. In spite of the negative signs the case was considered to be one of cancer of the œsophagus, with secondary affection of the lung and possibly of the liver. At the autopsy the gullet presented an enormous cancerous mass occupying the lower half of the tube, terminating about an inch from the cardia and involving the entire circumference with the exception of a narrow groove-like portion on the posterior wall. The edges of the mass were swollen and infiltrated, the base deeply excavated, and at one margin it had perforated the right lung near its root and was in communication with a series of sloughing abscesses. There were numerous secondary masses in the liver.

DR. MILLS commented on the ready passage of the bougie in this case, and thought it might perhaps be explained by a turn of the instrument. He thought it would have been a good case for the auscultation of the œsophagus.

DR. ROSS thought ausculation would probably have failed, inasmuch as there was no obstruction but œsophagoscopy might have been serviceable. The bougie had doubtless passed along the groove at the back of the gullet, which had acted as a sort of director; indeed when the specimen was on the table and unopened, Dr. Osler had passed a bougie at his request, and each time it slipped down without any obstruction.

DR. MILLS explained the mechanism of Dr. Morell Mackenzie's œsophagoscopy apparatus; he did not agree with Dr. Ross as to the value of auscultation in such a case, for, although no obstruction was present, yet the walls of the tube were so diseased, that they could not act muscularly, and thus in swallowing the sounds would be sufficiently delayed to be appreciated by the stethoscope.

DR. OSLER thought that ausculation might have afforded valuable evidence in this case, and remarked that he had seen an instance in which it was of considerable diagnostic importance.

LACERATION OF THE KIDNEY.

DR. RODDICK reported the case and exhibited the specimen. A healthy woman, aged 60, had fallen down a long flight of stairs, and was picked up insensible. There was no wound, but on recovering consciousness she complained of great pain in the right loin; vomiting began, and in spite of all treatment, continued to the end. The bowels became tympanitic and refused to act. Pure blood was passed from the bladder during the first twenty-four hours; subsequently, the urine was mixed with blood, and on the fourth day it was nearly clear. Rupture of the kidney was diagnosed, and ileus was suspected on account of the obstruction of the bowels and their great distention, though no tumor could be felt. Rectal injections were employed without any benefit. At the autopsy a large clot of blood was found surrounding the right kidney, which presented a laceration on the border, extending into the pelvis of the organ. The kidneys were firm and slightly granular. The bowels were distended but not obstructed; it was thought that perhaps the large blood clot might have pressed upon the ascending colon and produced the obstruction.

HÆMATEMESIS IN CHRONIC ENLARGEMENT OF THE SPLEEN.

DR. OSLER read a short paper calling attention to some points in connection with this subject. He alluded in the first place to the frequency with which hemorrhages are associated with all forms of chronic splenic tumors, more especially those accompanying leucocythemia. A depraved blood condition would seem to be an important factor, as they are also common in profound anæmia without splenic enlargement. Epistaxis is the most frequent, and next hemorrhage from the bowels, but hæmoptysis, hæmatemesis, and hæmaturia are occasionally met with. Of 150 cases of leucocythemia, collected by Gowers, hemorrhages occurred in eighty, and in eight of these from the stomach. The point to which he wished to call attention, was the possible occurrence in some instances of severe, perhaps fatal hemorrhage, even before the constitutional symptoms were marked, or even before symptoms sufficiently pronounced had aroused the suspicion of patient or physician.

The following cases were given in illustration:

Case I. Early Hæmatemesis in Splenic Anæmia.—J. H., aged 36, admitted to hospital September 3, 1879, with anæmia. Has been healthy and temperate. Served with the army in India where he had intermittent fever. In January, 1879, when in apparent good health, he had an attack of vomiting of blood. Within a week the bleeding recurred twice, and each time he lost a considerable amount and was greatly reduced. In July he had a single large hemorrhage from the stomach, and afterwards severe diarrhœa. Up to this time he had had no symptoms pointing to enlargement of the spleen but he now began to feel a sense of weight and distention in the abdomen, which soon became evidently swollen. He entered hospital with anæmia, enlarged spleen, ascites, and œdema of the ankles. He had no hemorrhage while under observation and during the month in hospital the dropsy disappeared, and his blood condition materially improved. He was taken to the country by his relatives and died suddenly of a profuse hæmatemesis.

Case II. Early Vomiting of Blood in Splenic Anæmia.—A. B., aged 11, a well-nourished, stout little girl, came under observation on August 13. The mother gave a history of good health in the child up to two years ago, when, during a slight indisposition, with some abdominal pain, she had a severe attack of vomiting of blood, lasting over twelve hours. She recovered and seemed to regain her usual health, though pale and subject to headaches. In July, a brother died, and the excitement brought on another attack, which lasted thirty-six hours, and in which she lost a couple of quarts of blood. She recovered rapidly, and at the time of observation appeared well nourished, but pale and a little puffy under the eyelids. She complained of a fulness in the abdomen, shortness of breath on walking fast, and loss of appetite. Examination revealed enlarged spleen, extending about three inches below the costal border; abdominal veins not distended; no ascites; blood-corpuscles about fifty per hæmic unit.

Case III. Fatal Hæmatemesis in Leucocythemia.—A. B., aged thirteen, under the care of Dr. R. P. Howard, a plump, well-nourished boy, had been at school and playing as usual. On the 13th of April had a severe attack of vomiting of blood, and shortly after, a large bloody stool. For four days there was repeated vomiting, and he brought up in all about four pints of blood. Death followed on the fourth day. Enlargement of the spleen was detected and a leukæmic state of the blood. The boy had not been under medical care prior to the sudden onset of the bleeding, but four years before had passed blood with the stools. At the autopsy the spleen was found enlarged, and weighed 480 grammes. There were no erosions or ulcerations in the stomach.

Case IV. Sudden and fatal Hæmatemesis in unsuspected Leucocythemia.—A young American lady on a visit to the city was attacked with violent hemorrhage

from the stomach which proved fatal within twelve hours. She had been in apparently good health, her father was a physician and had not any idea that she was even ailing when she left home. She was under Dr. Howard's care. At the autopsy the spleen was found enlarged and firm and the blood was leukæmic. There were erosions or ulcerations in the mucous membrane of the stomach.

In reply to a question from Dr. Buller, DR. OSLER remarked that the bleeding was doubtless due in many instances to an impoverished blood-state with an enfeebled condition of the capillary walls; but in others it might be from mechanical causes. Three-fourths of the blood from the stomach is discharged into the splenic veins, and in states of engorgement of these a stasis or interference in the gastric circulation might be brought about, sufficiently intense to necessitate relief by rupture of a vessel or a diapedesis of blood into the stomach.

DR. ROSS referred to the occurrence of early hemorrhage from the stomach in early stages of cirrhosis of the liver.

MARION COUNTY, INDIANA, MEDICAL SOCIETY.

Stated Meeting, November 1, 1882.

(Specially Reported for THE MEDICAL NEWS.)

DR. GEORGE J. COOK, formerly Professor of Anatomy in the Kentucky School of Medicine, but now of Indianapolis, read an interesting paper on

THE ANAL SPHINCTERS AND THEIR AGENCY IN THE CAUSATION OF CONSTIPATION.

He said that Dr. O'Bierne, of Dublin, was the first to demonstrate by numerous explorations of the human rectum, in 1833, that it is not a receptacle in which feces accumulate during the intervals between the periods of defecation. Before that time it was never doubted that the feces passed freely along the colon and were not stopped until they reached the rectal pouch. Dr. O'Bierne examined persons in a few minutes after defecation, and others at the moment when they felt a moderate inclination to go to stool, and found that the rectum was perfectly empty and contracted at both these periods. The anatomy of the rectum shows an ill-construction for the purpose of a reservoir, and differs greatly from the large intestine. The rectum contains two strong layers of muscular fibres, longitudinal and circular. The three longitudinal layers of the colon pass down over the rectum, two anterior and one posterior. Besides the "sphincter of O'Bierne," at the upper part of the rectum and the external and internal sphincters below, we have the "sphincter ani," composed of a semi-circular band of fibres about three inches from the anus, and a posterior one about an inch higher than the anterior, and above the rectal pouch. The lower fibres of the posterior band run obliquely downward and form the upper border of the anterior band. These have been clearly demonstrated by Dr. Chadwick, of Boston. The upper part of the rectum when empty being firmly contracted, and these circular bands being stronger than other parts of the rectal walls, strong and prominent projections are formed in the inside of the gut, which can be easily felt in the healthy rectum as two semi-circular folds or constrictions. It is this constriction which is so often diagnosed as stricture, when by its firm contraction it offers obstruction to the free passage of the rectal bougie, which lodges against the superior bundle of constricting fibres, and if the bougie is pressed firmly onward, it will lodge against the sacrum below the promontory. Lynn reports a case where three hundred hours were spent by a reputable surgeon in dilating a stricture of the upper part of the rectum which the *post-mortem* proved did not exist, but that the end of the instrument had lodged in this fold against the sacrum.

The valvular arrangement claimed to have been discovered by Mr. Houston, of Dublin, in 1830, has been clearly shown not to exist by Busch, Chadwick, and others. Gray, Wilson, Heath, Ellis, Quain, and Harrison speak of the valves of the rectum, and give Houston as their authority, which gives the student a very wrong idea of the anatomy and physiological action of the rectum. Cruveilhier does not speak of any such valves. The rectum, especially the lower portion, receives a more abundant blood-supply than any other part of the large intestine. The nerve-supply to the rectum comes from two sources—from the hypogastric plexus of the sympathetic, and from the fourth anterior sacral nerve, being the only part of the intestinal canal which receives branches direct from the spinal nerves, which accounts for its greater sensibility and irritability than any other portion of the intestines. The external sphincter receives a greater nerve-supply than any other muscle in the body, being supplied by branches of the internal pudic, the fourth sacral, and the posterior sacral nerves, which also supply the integument over it, and the vessels and pelvic organs and external organs of generation. The spinal nerves supplying all the pelvic viscera, the structures of the perineum, and external organs of generation, are given off from the same point in the spinal cord, which accounts for the numerous reflex phenomena encountered about the pelvic organs—the spasmodic contraction of the sphincter ani attendant upon an inflamed prostate or bladder or irritation of the urethra, by inflammation or the introduction of a bougie, or chronic inflammation of the lower part of the uterus.

The proper receptacle for feces is the sigmoid flexure of the colon, which hangs down in the pelvis like a bag with the ends turned up, which position specially adapts it for a receptacle for the feces, where they are arrested until the period for their final discharge, which is accomplished by the sigmoid flexure rising out of the pelvic cavity into the iliac fossa as it becomes filled. This, together with the contraction of the colon, obliterates the acute turn in the gut between the colon and rectum, giving free passage to the contents, which are forced onward by the contraction above and relaxation below of the muscular fibres of the gut. When the mass reaches the perineum, the abdominal muscles come into play and assist in the final repulsion. Just as the last part of the *mass* is ready to be expelled, the levator ani contracts and raises the perineum, which seems to be necessary to the discharge of the last part of the feces. The longitudinal fibres assist in drawing the gut up over the mass.

The external sphincter is a purely voluntary muscle and contracts by both reflex action and direct volition. The rectum will not tolerate the presence of feces in it for any great length of time without education. When the expulsion of feces is voluntarily resisted for any length of time, a reversed or anti-peristaltic action takes place, and the feces are returned to the sigmoid flexure. By a repetition of this from time to time, the rectum is gradually educated to tolerate what is really irritating to it, and it is only educated rectums that are found full of fecal matter between the periods of defecation. This education begins by persons daily refusing to respond to the calls of nature. The rectal walls, from over-distention and exertion, lose their strength and irritability and are finally reduced to a state of atony. At the same time, the sphincter is becoming hypertrophied and increases in strength. The constant presence of a fecal mass in the rectum and its pressure on the terminal branches of the internal pudic nerves

at the upper border of the internal sphincter produces increased irritability of the muscle and a much stronger automatic contraction, which increases with the irritation of the muscle until the muscle will cease to respond perfectly to the will, when it is the desire to thoroughly relax it, and the once voluntary obstruction becomes an obstruction beyond the power of the will to entirely overcome. The internal sphincters soon get to acting the same way. Contraction takes place by reflex action caused by irritation from the fecal mass and will not relax until forced to by the advancing feces, which requires the aid of the abdominal muscles, and then an atonied rectum is never entirely emptied.

The same irritability of the sphincter is often produced by chronic diseases of the surrounding organs which are intimately connected with the external sphincter through the nervous system. Whatever may be the cause of this contraction of the sphincter, when it is continued long enough to produce atony of the rectal walls, chronic or obstinate constipation is the result. The sphincter muscle in these cases is always found firmly contracted and increased in size and irritability, making it difficult to introduce the finger into the rectum. Both rectum and sigmoid flexure are filled with feces, and the rectal walls have little strength to assist in expulsion. By the combined efforts of the rectum, colon, and abdominal muscles, the sphincter is dilated and the mass expelled, except the upper portion, which is left in the rectum until the next effort.

The watery portion left is absorbed and a dry mass left for the next discharge. The various rectal diseases produce irritability of the muscle with the above consequences. Obstruction by the external sphincter is the prime cause of constipation in the majority of cases. Atony of the rectal walls, which is always present in these cases, is usually the result of obstruction, and not the prime cause of the constipation.

NEW INVENTIONS.

A NEW OVUM FORCEPS.

BY A. E. SPALDING, M.D.,
OF LU VERNE, MINN.

EVERY physician has no doubt been occasionally perplexed in treating cases of miscarriage which occur from the fourth week to the third month. The tampon, which is undoubtedly used more than any other method of treatment, is very useful, but in several cases I have seen alarming hemorrhage occur with the vagina packed completely with pledgets of cotton. In such cases the ovum should be removed as soon as possible and when it can be reached with the finger, I think it better to remove it in that way than to use any form of instrument, but frequently we feel the ovum partially detached, rolling around within the uterus, and still we are unable to withdraw it.

I have found the instrument which I had made for me by J. H. Gemrig & Son, of Philadelphia, as shown by the accompanying cut, to answer the purpose of detaching and removing the ovum admirably. It is made the size of the common uterine dressing forceps, with the exception of the jaw, which is fenestrated, the edges are smooth and rounded so there is no danger of injuring the uterus, and its size is such that it is easy of introduction.

CORRESPONDENCE.

A LETTER FROM GENERAL WASHINGTON TO DR. JAMES CRAIK.

WE have received the following interesting and hitherto unpublished letter from General Washington to his intimate friend and physician, Dr. James Craik, from Dr. Weir Mitchell, to whom it was sent by Mr. George Bancroft, the historian, with the accompanying note:

"Here, my dear Doctor, you see the relation between physician and friend in the last century. The letter is enough to wring the heart for the sufferings of the best of mortals. Ever yours,

"GEO. BANCROFT."

"MOUNT VERNON, 4 August, 1788.

"DEAR SIR: With this letter you will receive the horse I promised you, and which I now beg your acceptance of. He is not in such good order as I could wish, but as good as my means would place him.

"I also send you thirty pounds cash for one year's allowance for the schooling of your son, G. W. I wish it was in my power to send the like sum for the other year which is now about or near due, and that could discharge your amount for attendance and ministrens to the sick of my family, but it really is not, for with much truth I can say, I never felt the want of money so sensibly since I was a boy of fifteen years old, as I have done for the last twelve months and probably shall do for twelve months to come.

"Sincerely and affectionately,

"I am, yours, etc.,

"GEO. WASHINGTON."

CAFFEINE IN HEADACHE.

To the Editor of THE MEDICAL NEWS.

SIR: In December, 1878, I was called to treat a lady suffering from a very severe headache. For some years she had had emphysema of the lungs and, resulting from this, frequent attacks of dyspnœa.

When I saw her she complained some of difficult breathing and was purple about the face, but the headache was agonizing. I tried several remedies without avail and remembering to have seen caffeine recommended in a general way for headache, I resolved to give it a trial. Accordingly at my next visit two grains of this drug was directed to be given every half hour until the patient was relieved. After the first dose she became easier and soon the headache ceased entirely.

Some time after this I was [illegible] a lady for an attack of pericarditis, who had long had asthma. Upon visiting her one day I found her complaining of violent headache, and I noticed a dark hue about the

face; calling to mind my former experience, she was at once put upon two grain doses of caffeine every half hour. It acted like a charm and promptly afforded relief.

Another lady had pneumonia: she was the patient of a brother practitioner and I was called to treat her in his absence; found her comfortable in every way with the exception of severe headache. I noticed a dusky tinge of the face and gave two grains of caffeine every half hour. After the second dose she became easy.

Since the above experience I prescribe caffeine in headache, if there is a dusky hue about the face, with as much confidence of relieving my patient as I feel in the use of quinia for ague. This drug has long been used for headache, but, so far as I am aware, no particular indication has heretofore been given for its use. My usual prescription is 16 grains of caffeine to one ounce of simple elixir, and dose, teaspoonful—frequently repeated if necessary.

I am, sir, yours,

CHAS. B. JOHNSON.

CHAMPAIGN, ILL., November 5, 1882.

NEWS ITEMS.

CINCINNATI.

(From our Special Correspondent.)

CLINICAL TEACHING OF OBSTETRICS.—Your readers in this city were much surprised by the excitement of the Philadelphia Hospital authorities concerning Dr. Warder's recent delivery of a woman during his lecture in the hospital amphitheatre. Dr. Warder did only what should be demanded of every teacher of the obstetric art in these times. We are gratified to note—just what we expected—the full spirit of this sentiment in the editorial which appeared in THE MEDICAL NEWS a fortnight ago. In our city clinical teaching is regarded fully as imperative in this as in any other department of practice. When Prof. Reamy, several years ago, first brought an obstetrical case before his class in the amphitheatre of the Medical College of Ohio, there was some little unfavorable criticism even on the part of members of the profession, and severe comments in a few of the secular papers; but the benefit to the student and the public was so patent that for years he has delivered from three to six cases annually before his class without objection from any quarter; it is now regarded as an established and necessary feature of obstetric teaching here. No difficulty whatever is encountered in getting subjects for these clinics. Poor women voluntarily enter the obstetric wards especially established for this purpose, with the express understanding that they are to be taken before the class at the time of delivery. That any serious objection to a feature of such necessity should be raised in Philadelphia, which has so long been justly regarded as a centre of medical education, is a matter of astonishment to us in the West.

REMARKABLE CASE OF MELANOSIS.—One of the most remarkable cases of melanosis on record was recently reported by Dr. Wm. H. Falls, of this city. The skin of the entire body gradually changed its color until the man, once of light complexion, became as black as a negro. Impaired vision, resulting in complete blindness, was the initial symptom, being due to the deposition of the melanotic masses in the choroid. The urine, black as ink, was highly albuminous. The subcutaneous nodules, widely distributed over the entire body, varied from the size of a millet seed to that of a cherry. With the exception of occasional convulsions the patient's intellect remained clear to the end. Death resulted from paralysis following one of these convulsions. Melanotic masses were found in various parts of the brain and all the other viscera. These proved, on microscopic examination, to be melano-sarcomata. A detailed clinical history of this most interesting case, which lasted ten months, will, with illustrative lithographic engravings, and full *post-mortem* and microscopic accounts, be published in an early issue of the *Lancet and Clinic*, of this city.

BROOKLYN.

(From our Special Correspondent.)

SCARLET FEVER AT FLUSHING.—At Flushing, Long Island, scarlet fever has prevailed to an unusual extent, and the authorities have found it necessary to close one of the town schools.

BREWSTERS, PUTNAM COUNTY, NEW YORK.

(From Our Special Correspondent.)

AT the Quarterly Meeting of the Putnam County (N. Y.) Medical Society, held October 24, the following resolution was adopted:

Resolved, That this Society does not approve the Code of Ethics adopted by the State Society, at Albany, in February, 1882.

CANADA.

(From our Special Correspondent.)

THE NUMBER OF DOCTORS IN CANADA.—From the *Ontario Medical Register* just issued we learn that there are on the list of qualified practitioners 1919 names. 175 members practice outside the Province, and the addresses of 86 are unknown; so that there are about 1700 medical men. The census of 1881 gave 1,913,460 inhabitants, making about one medical man to every 1125 inhabitants.

PROGRESS OF THE YELLOW FEVER AT PENSACOLA.—The telegraphic reports received by the National Board of Health for the six days ending November 12th, are as follows:

Dates.	Cases.	Deaths.
November 7,	7	1
" 8,	3	3
" 9,	9	2
" 10,	3	0
" 11,	4	2
" 12,	11	1
Total,	37	9
Previously reported,	2243	185
Total,	2280	194

Dr. Hargis, President of the Pensacola Board of Health, expresses his views on public sanitation in a letter to Dr. White, of the Marine-Hospital Service, published, November 10, in the *Times-Democrat*, of New Orleans. "Furthermore," he says, "I take the occasion to deny, as has been asserted, that the National Board of Health has, to my knowledge, in a single instance attempted to trench upon the rights or prerogatives of any State or local board of health. From the time the National Board of Health was organized, and up to very recently, it was apprehended without just grounds, or even any reasonable grounds at all, that a new centralizing power should usurp the duties devolving upon State and local organizations, but even one year's service, during which the scope of its duties were carefully defined by able statesmen, showed conclusively that all such apprehensions were but the creations of a morbid fancy.

"The National Board of Health has its own special field of operation clearly and accurately limited, and within those limits it alone could act and did perform. It could not, even if it would, have assumed functions, which belong to and were performed by State and local authorities except by co-operating with them, but it was the fault of State and local boards that lack of harmony and concord of action ensued, as I predicted.

"The interests of commerce, and of the whole world, are bound up in the great question which I, for one, am glad to see intrusted for action and deliberation to the National Board of Health. That our colleagues in that Board will not betray their trust, nor act rashly, is universally acknowledged. I am in favor of an extension and not limitation of their powers, and under the guidance of Hon. Isham G. Harris, State authority can never be forgotten."

CHOLERA IN JAPAN.—The cholera which has been ravaging certain ports of Japan, and especially the ports of Yokohama and Osaka since April last, is now officially announced as having disappeared from the country. Advices from the United States Legation Tokio, Japan, state, that on the 26th of September the enforcement of the quarantine laws had been suspended at Kobe and other ports in respect of vessels arriving from Yokohama; and that on the 6th of October the enforcement of the said regulations had been suspended in respect of vessels arriving from Osaka, the cholera having disappeared from the said port. By virtue of these orders of suspension, quarantine laws are not now enforced at any port in Japan. Reports from Yokohama to the National Board of Health, dated October 16th, state that, since September 29th, no new cases of cholera have been reported as occurring in the city and vicinity, and that clean bills of health are now being issued to vessels leaving the port. Up to that date the total figures reported were 3,619 cures and 2,328 deaths, giving a mortality of 64.22 per cent.

THE ORGANIZATION OF A BOARD OF HEALTH AT PATERSON, N. J.—After a long delay a Board of Health has been established at Paterson, N. J., under the laws of the State. This step has been urged by the citizens ever since the late outbreak of smallpox, and the indications are that it has been taken none too soon, as under the old condition of things, there was a lack of authority for the officials to enforce the abatement of nuisances promptly, and to take proper measures for the compulsory movement of smallpox patients to quarantine.

The Board of Aldermen, at its meeting on last Monday night, passed the ordinance establishing a Board of Health, and the Mayor immediately appointed as members Dr. John Quin, Dr. E. J. Marsh, Henry L. Butler, and James Beggs. The appointments were confirmed. The other members are, ex-officio City Physician, C. F. W. Myers; Health Inspector, W. K. Newton; and George Boyd, the Register of Vital Statistics. The Medical members of the Board are all regular physicians. Dr. Quin is one of the Aldermen. Dr. Marsh is President of the Passaic County Medical Society. Mr. Butler was recently one of the Inspectors of the New Jersey State Prison, and is a member of the commission appointed by Governor Ludlow to examine into the question of water supply for the cities of New Jersey. Mr. Beggs is an engineer. It is thought that the members of the Board are of such character as will secure the enforcement of all necessary sanitary measures.

The situation is still considered grave. There have been six new cases of smallpox reported during the first three days of this week, and three of these were in localities where the disease had not previously existed. One of them was in a house on Arch Street, on which a sign was placed to warn people of the presence of the infection. Some unknown persons removed this sign several times after it had been replaced by the authorities, so City Physician Myers had a notice inserted in the local papers, warning the public. Two deaths were reported on Tuesday.

HARVARD UNIVERSITY.—The Corporation of Harvard University have passed a vote formally according to the Medical Faculty, that no matters relating to medical education should be acted on in the future until the Faculty should have had a full hearing upon the subject at issue.

The text of this vote has just been made public among the official records of the Corporation in the *University Bulletin* for October, and reads as follows:

Voted, that a standing committee of two members of this Board be appointed with whom the Medical Faculty may confer on any matters relating to medical education in the University.

The President appointed Messrs. Parkman and Agassiz as this committee.

Voted, that the President and Fellows deem it inexpedient to legislate in matters relating to medical education in the University without first offering to the Medical Faculty an opportunity of expressing its views.—*Boston Medical and Surgical Journal*, November 9, 1882.

DR. FLINT'S LECTURES BEFORE THE PHILADELPHIA COUNTY MEDICAL SOCIETY.—DR. AUSTIN FLINT, of New York, will deliver in the hall of the College of Physicians a course of three lectures on "The Physical Exploration of the Lungs by Auscultation and Percussion," before the Philadelphia County Medical Society, on the evenings of Saturday, November 25th, December 16th, and January 13th.

The subjects of the lectures are:

Lecture I. The True Mode of Study and its Requirements as Regards Auscultation and Percussion. The Signs obtained by Percussion.

Lecture II. Auscultation; and the Respiratory Murmur, with its Abnormal Modifications.

Lecture III. The Râles and the Vocal Signs.

The profession are invited to attend the lectures.

DR. HAMILTON'S BILL FOR PROFESSIONAL SERVICES TO PRESIDENT GARFIELD.—Dr. Frank H. Hamilton, of New York, in submitting to the Board of Audit his bill, amounting to $25,000, for services rendered to the late President James A. Garfield, wrote to Judge Lawrence, under date of October 18, as follows:

"I received you note of the 19th ult., calling my attention to the fact that the Board of Audit is awaiting the presentation of any claim against the estate of the late President. Availing myself of your suggestion that I may make to the board any further communication which I may deem proper, I will say that in presentation of a claim which I know cannot be paid out of the sum, $35,000, placed at your disposal by Congress, my intention is only to indicate to you what I would regard as the minimum compensation for similar service in case of a private person who was pecuniarily responsible, and who would not be embarrassed by payment of such sum. I will further say that while I do not make for myself any relative claim, I must protest against the presentation, on the part of one of the physicians in attendance, of a relative claim to the effect that he is entitled 'to receive double the fee of any other physician in attendance,' which claim was laid before the House committee, and may have been laid before your board."

The letter was accompanied by a specific statement

of the nature of the services rendered at the conclusion of which Dr. Hamilton said; "These circumstantial statements I make with great reluctance; but they seem to be rendered necessary by the fact that there are intimations to the contrary contained in the report of the House committee, and obtained apparently from sources which the committee considered reliable. Moreover, Congress has chosen to place the payment of the medical attendants upon a purely business basis, and your board has therefore properly instructed the claimants to 'describe fully the services rendered.' The sole item which I have to present to your board, as the basis of my claim, is my long attendance upon the late President as a consulting surgeon, with its accompanying responsibilities, which God forbid I shall ever again be called upon to bear."

COMMENCEMENT OF DARTMOUTH MEDICAL COLLEGE.—The graduating exercises of the Dartmouth Medical College were held on Tuesday evening, November 14th. After prayer by President Bartlett, an address was delivered by Dr. D. W. Jones, of Portsmouth. A thesis was read by J. F. Larocque, and the Valedictory was delivered by Hilary J. Moore. After an address by President Bartlett, and the bestowal of prizes, the Hippocratic oath was administereed by Prof. C. H. Frost, the degree of M.D. was conferred upon the graduates, of whom there were twenty-one. The first prize for the best examination in all branches was awarded to John Nottage, of Nashua, N. H., and the second, for the best examination in the practice of medicine, to E. N. Mullins, of North Londonderry, New Hampshire.

THE NATIONAL ACADEMY OF SCIENCES held its annual meeting this week in New York. Prof. O. C. Marsh, of Yale, Vice-President, presided, and Dr. G. F. Barker, of the University of Pennsylvania, acted as secretary. A number of scientific papers were read, but none of them had any special bearing on medicine.

LECTURES AT THE NEW YORK ORTHOPÆDIC DISPENSARY AND HOSPITAL.—The Trustees of the New York Orthopædic Dispensary and Hospital announce that Dr. Newton M. Shaffer will give a course of clinical lectures, on orthopædic surgery, at the Institution, on Thursday afternoons, at half-past four o'clock, from November 16, 1882, to February 15, 1883, inclusive. The course will be free to the medical profession and students.

Subjects: Ankle-joint Diseases, Knee-joint Diseases, Hip-joint Diseases, Pott's Disease, Club Foot, Knock-knee and Bow- egs, and Lateral Curvature.

THE BROOKLYN EYE AND EAR HOSPITAL on Thursday evening gave a reception, so as to afford an opportunity to the friends of the Institution, and the subscribers to its recent building fund, to inspect the new alterations and additions. Through the kindness and liberality of some of the friends of the Institution a simple collation was served in the dining-room.

SIR THOMAS WATSON, BART.—The whole profession will learn with deep concern that the health of this revered physician has during the last few days been a source of anxiety to his family and friends. He had for some weeks past been staying with his son at Reigate. On Sunday last, although now in his ninety-first year, he was in his usual good health and attended the morning service. On attempting to rise from his chair after lunch he suddenly inclined towards the left side, and would have fallen on the floor if he had not been supported by his son. He afterwards took a short walk in the garden, but there was an evident weakness of the left leg, and this continued to such a degree that he is now unable to walk without assistance. There is no appreciable loss of power in the arm, but the tongue when protruded deviates slightly to the left. There has been no drowsiness, and he is in complete possession of his mental faculties. His kind neighbor, Dr. Walters, of Reigate, is in daily attendance, and he has been visited by his old pupil and friend Dr. George Johnson, to whom he calmly remarked, "This is the beginning of the end." His medical attendants are agreed that there is probably some arterial obstruction by thrombosis in the neighborhood of the right corpus straitum. —*Lancet*, October 28, 1882.

PERSONAL.—A telegram to the *N. Y. Tribune* says that the health of Ex-Surgeon General Barnes continues to be so feeble as to excite the gravest apprehensions of his friends. Dr. Woodward, another of President Garfield's physicians, has been steadily sinking for several months past, and no hopes of his recovery are now entertained.

PROF. NOTHNAGEL was enthusiastically received by the students and professors on the occasion of his first official appearance, on October 16, as a member of the Vienna medical faculty. His introductory lecture was an eloquent tribute to the memory of his predecessor, the late Prof. Duchek.

MR. J. N. LANGLEY, of Trinity College, Cambridge, has been appointed teacher of physiology.

MR. A. SEDGWICK, the late Prof. Balfour's assistant, has been appointed to the lectureship held by Mr. Balfour before his election to the professorship.

THE BALFOUR MEMORIAL.—A large and influential meeting of gentlemen connected with the two Universities has been held at Cambridge, in connection with the proposed memorial to the late Prof. Balfour. The Vice-Chancellor presided. It was agreed, on the motion of Prof. Huxley, that the memorial should take the form of a fund, to be called the Balfour Fund, for the promotion of research in biology, especially animal morphology. At the close of the meeting it was stated that the Balfour family would give £3,000, and Dr. Michael Foster £1,000. Dr. John Willis Clark has been appointed treasurer to the fund.—*British Medical Journal*, October 28, 1882.

THE NEXT INTERNATIONAL CONGRESS OF HYGIENE will meet at the Hague, in January, 1884.

THE HEALTH OF THE EMPEROR OF GERMANY.—It is reported that the Emperor of Germany is suffering from some nephritic disease.

BANQUET TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.—It is proposed in London, at an early date, to give a banquet of welcome to the medical officers of the British army and navy who served in the Egyptian expedition. Sir William Jenner, Bart, K.C.B., President of the Royal College of Physicians, will take the Chair.

THE PROCEEDINGS OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The Council of this Society has decided on making some innovations in the conduct of the proceedings of the Society. Hereafter printed abstracts of the papers to be read are to be supplied before each meeting, in sufficient time to allow members two or three days for the consideration of the subject; and, on the evening of the meeting, a sufficient number are to be laid on the table for the use of the members present. Hitherto, only a written abstract of each paper has been placed in the Society's room for inspection before the meeting. Authors are

also to be allowed to read their own papers if they prefer to do so, instead of having them read by the secretaries.

PROF. VIRCHOW.—At the last meeting of the Berlin Medical Society, PROF. VIRCHOW was installed anew in the president's chair. Virchow's bust, presented by his assistants, has just been erected in the hall of the Berlin Pathological Institute.

EXCISION OF THE PYLORUS.—On Oct. 17th, at St. Thomas's Hospital, MR. SYDNEY JONES removed the pylorus for malignant disease. The patient, aged fifty-seven, was under the care of Dr. Bristowe. A large growth completely surrounding the pylorus, together with some affected glands, was removed. The operation was a prolonged one, and was carried out with antiseptic precautions. The patient was much emaciated before the operation, and unfortunately did not rally from the shock, dying about six hours afterwards. We hope shortly afterwards to publish the particulars of the operation and morbid appearances.—*Lancet*, October 28, 1882.

NEPHRO-LITHOTOMY.—On the 21st of October, at the Queen's Hospital, Birmingham, MR. BENNETT MAY performed this operation on a man 34 years of age. The stone, weighing 473 grains, was extracted entire through an incision in the kidney, which was healthy. The case, which promises to be an interesting contribution to the operative treatment of renal calculus, will be published when complete. At the present time the patient's condition is excellent in every respect.—*British Medical Journal*, October 28, 1882.

A NEW VEGETABLE STYPTIC.—A recent number of the *Neue Freie Presse* states that during the French expedition to Mexico a plant was discovered, called by the natives by a name which may be rendered as "Fowlwort" (Tradescantia erecta, Jacq.), which has the property, when chewed or crushed, of stopping any hemorrhage. A specimen planted in 1867 by the discoverer, in his garden at Versailles, has not only flourished, but flowered and fruited, without having its peculiar properties as yet appreciably diminished. Although no exotic, or remarkable for particular beauty of bloom, it, nevertheless, deserves a wider extension on account of its valuable properties, especially as its acclimatization may be regarded as having been fully established. Its action exceeds that of all styptics as yet known, as, for example, perchloride of iron, and it can, moreover, be very cheaply procured.—*Lancet*, October 28, 1882.

PRESERVATION OF DEAD BODIES FOR IDENTIFICATION.—Every corpse that is taken to the Paris Morgue is now quickly converted into a block, almost as hard as stone. This result is obtained by Carré's chemical refrigerator, which is capable of reducing the temperature of the gruesome "conservatory," where each body is laid out on something closely resembling a camp bedstead in stone, to 15° below zero Centigrade. At the back of this *salle* is a row of stove-like compartments in which the corpses are boxed up and frozen hard before being exposed to public view. As an illustration of the intense cold thus artificially secured, a Paris journalist, in describing a recent visit to the Morgue, says that in opening one of the compartments the attendant took the precaution to wear a glove lest "his hand should be burnt by contact with the cold iron." The corpse, which was taken out of its receptacle, had been there nine hours. During the experiments which preceded the adoption of the new system, corpses in this frozen state were actually thrown about, but although they made *un fracas terrible*, they were "not in the least damaged."—*Med. Times and Gazette*, October 21, 1882.

DISINFECTION OF HOSPITALS.—M. MIGUEL has recently undertaken a series of experiments with reference to the destruction of the numerous micro-organisms held in suspension in hospital wards. It having been ascertained that many bacterial germs resist, for a period of two hours, dry air warmed up to 145° or 150° Centigrade (293° to 302° Fahr.), his investigations were made on chemical agents specially. After having satisfied himself that atmospheres loaded to saturation with the vapors of chloroform, carbolic acid, ammonia, sulphurous acid, sulphide of carbon, hydrocyanic acid, and nitrous ether, are powerless to destroy all the germs contained in floating dust, even after twenty days' action, he directed his attention to a class of corrosive substances, which destroyed these so-called germs as certainly as a long-maintained temperature of 200° Cent. (392° Fahr.). Thus, an atmosphere saturated with iodine-vapor at the ordinary temperature destroyed every schizophytic germ at the end of ten days. Bromine, diffused in the air, produced the same results at the end of two days; hydrochloric acid gas, of an equal volume, acted at the end of the same time with similar efficacy; the vapors of nitrous acid and moist chlorine gas had the same effect; but the damage produced by these extremely corrosive agents on wood, linen, and metals rendered the destruction of bacteria by these processes a very costly proceeding. It must be remembered that bacteria, and not mould, is in question; for the spores of the commonest forms of mould resist the powers of those agents that can destroy bacteria.—*British Medical Journal*, October 28, 1882.

PUBLIC HEALTH IN CONNECTICUT.—From the report for September of the Connecticut State Board of Health we learn that the month of September can hardly be classed among the healthy months of the year when the mortality tables are consulted, together with the usual average of at least five cases of sickness for each death. These taken together indicate the category to which the month must be referred. The large proportion of deaths from zymotic diseases, those rightly classed as preventable included, is a marked feature. The protracted heated term gives also a large addition in the cities from cholera infantum, using the term comprehensively; convulsive disorders, and infantile debility are also prominent, showing the depressing effects of unsanitary surroundings upon infant life. Hartford stands prominent as an illustration of the prominence of these diseases, as they cause nearly fifty per cent. of the mortality of the month. Ten deaths are reported from typhoid fever, a large number even after those brought into the city to the hospital are deducted.

The principal diseases of the month have been diarrhœal and dysenteric diseases, typhoid fever and malarial diseases. There has been some diphtheria, whooping-cough—scarlet fever—rather more than the usual number of diseases of the nervous system, and a larger number of cases of erysipelas; cerebro-spinal meningitis is reported in one or two instances, two fatal cases from Bridgeport, one from Avon. A large number of towns report more or less typhoid fever, comprising nearly every part of the State, indicating quite a general prevalence. In Portland it could almost have been called epidemic there were so many cases.

This return of typhoid fever to prominence, and its steady increase in frequency for the last three years, is apparently a part of an extensive and comprehensive movement, as the epidemic of malaria was ushered

in by a decrease, and in places almost if not quite a total disappearance of typhoid. This return of typhoid fever to its former importance and relative frequency is an intimation of the decrease and disappearance of malaria. The tendency towards typhoid fever commenced several years ago, and has steadily grown stronger each year as shown by the increased prevalence, tendency to unusual frequency and severity, and the increase each year of deaths from this cause. As the decrease in the frequency of typhoid preceded the malarial wave, so its increase precedes the entire disappearance of malaria, but gives us some ground for hope that such a disappearance will take place. This disappearance of epidemics of malarial fever, on a large scale, has often been followed by an unusual prevalence of typhoid fever or an extensive epidemic. The epidemics of malarial fever of 1807 and 1824, which are stated to have extended over all Europe, were followed by typhoid fever. Of course it is as yet but an inference that the present malarial influence which has extended continuously over the greater part of this State into Massachusetts and Rhode Island is subsiding and leaving its first points of invasion. But there is much to encourage such an idea. It is quite a prevalent impression that there has commenced a steady decrease in the general frequency of malaria in the west and southwestern parts of the State. However that may be, the return of typhoid fever, the tendency towards a continued type shown by malarial fevers, the large percentage of typho-malarial fever, forming 86 per cent. of the mortality from malarial diseases last year, or 222 out of 357 deaths, are obvious facts.

Whether or not malaria will become endemic in any part of the State is a question of interest that time only can determine. The idea has been advanced that the southwestern part of this state is a border-land where the epidemic influence from the southwestern regions (especially Westchester County where malaria is endemic), finds a resting-place whence, if reinforced repeatedly, or strong enough originally, it invades other parts of the State. The same tendency before noted to greater severity in regions where it has existed for some time continues, while few cases of acute intermittent occur. Thus congestive chills are reported in several instances, one fatal case in Hartford, one in Meriden. A singular fact often illustrated is the tendency to acute intermittent shown by new comers, even if they come from a malarious region, and have had ague previously. What at first looked like a fresh recurrence of acute intermittent was found on investigation to be mainly confined to the new families that had recently moved from New Jersey.

The conclusion to be drawn from the sanitary history of the month is the need of closer attention to the sources of disease. If every city would employ sanitary inspectors under the direction and control of the boards of health, as does New Haven, the results would be as apparent as they are there. If a nuisance must exist until it becomes unbearable, which is generally the case, before any one complains, much harm is caused that is avoided under the other plan. Persons, then, that if left to themselves, pollute their own premises and adjacent unoccupied spaces, with decaying organic matter, or have other unsanitary tendencies, would be checked and kept in order, if they knew that some one would look after them at any time, when least expected, and take them to task for their shortcomings.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending Nov. 4, 1882, indicate that tonsillitis has considerably increased, that scarlet fever and typho-malarial fever have increased, and that intermittent fever and diarrhœa have decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending Nov. 4, and since, at 25 places, scarlet fever at 19 places, measles at 2 places, and smallpox at 2 places, as follows: at Niles, and at Grand Rapids (one new case) Nov. 4.

OBITUARY RECORD.—Died at Lattingtown, L. I., October 30, in the 86th year of his age, JAMES C. TOWNSEND, M.D.

Dr. Townsend studied medicine with his uncle, the late Dr. Thomas F. Cock, of New York, and graduated in 1820, from the College of Physicians and Surgeons. He settled in his native place, Lattingtown, and for more than half a century practised there and in the vicinity. About a year or two since, the growing infirmities of age induced him to abandon his professional career, which had been active and extensive during a period of years allotted to but few of his compeers. He was one of the founders of the Queen's County Medical Society, and an active member thereof until the close of his life. Possessed of a robust physique, an active and well-cultured mind, and a public-spirited disposition, he was long known as a wise counsellor not only in matters professional, but in the furtherance of interests affecting the common weal. His estate is said to be valued at $125,000, the fruit, in no small measure, of his long and successful practice.

—— Died at Burlington, Vt., on Tuesday, November 14, aged 65 years, SAMUEL WHITE THAYER, M.D., Emeritus Professor of Anatomy in the Medical Department of the University of Vermont.

Dr. Thayer was born in Braintree, Vermont, on the 21st of May, 1817, of New England parents, whose ancestors emigrated to this country from Wales in the early part of the seventeenth century. He received his medical education at the Vermont Medical College, Woodstock, and graduated in 1838. He settled in Woodstock, but in 1840 he removed to Northfield, in the same State, and in 1853 he established himself at Burlington. In 1854 he was made Professor of the Theory and Practice of Medicine in the Medical Department of the University of Vermont, and was subsequently transferred to the Chair of Anatomy. During the war of the rebellion he was made Surgeon-General of Vermont. Dr. Thayer's professional laurels were won chiefly in the domain of surgery, and he is said to have twice successfully amputated at the shoulder, and removed the entire scapula and half the clavicle. His widow and one son survive him.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOVEMBER 6 TO NOVEMBER 13, 1882.

AINSWORTH, F. C., *Assistant Surgeon.*—Granted leave of absence for one month, with permission to apply for extension of one month.—*S. O. 120, Department of Texas, November* 1, 1882.

AINSWORTH, F. C., *Assistant Surgeon.*—The leave of absence granted November 1, 1882, is extended one month.—*S. O. 121, Military Division of the Missouri, November* 9, 1882.

BREWSTER, WM. B., *Assistant Surgeon.*—On being relieved by acting Assistant Surgeon Potter, will proceed to Fort Bridger, Wyoming, reporting to the commanding officer thereof for duty.—*S. O. 116, Department of the Platte, November* 4, 1882.

MCELDERRY, HENRY., *Assistant Surgeon.*—Upon arrival of Assistant Surgeon Brewster at Fort Bridger, Wyoming, to be relieved and ordered to Fort Robinson, Neb., to report to the commanding officer thereof for duty.—*S. O. 116, Department of the Platte, November* 4, 1882.

BRECHEMIN, LOUIS, *First Lieutenant and Assistant Surgeon.*—Leave of absence for five months granted.—*S. O. 259, par 2, A. G. O. November* 6, 1882.